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LXXXI of a series of Century old cities - Cambridge, Mass.



"Financial Implications of the Peace," Summarized by Roy A. Foulke
14 Ratios for 36 Industries Business Births and Deaths

Dear Mr. Waldo: We thank you for your good offices in drawing the deed for the parcel of land which we engaged to purchase from Martin Chamberlin when we decided upon Dalton as the site of our paper-mill. Your use of our paper in the preparation of this document affords us added satisfaction, for we deem it to be of such enduring quality as to outlast our direction of this enterprise and be handed down for generations as evidence both of ownership and of the character of our product.*

Now that we have full title to these fourteen acres, and our mill is making some twenty posts of paper a day, we may indulge in a smile at Mr. Chamberlin's lack of confidence in our ability to establish ourselves here. For he was unwilling to make this deed "until the thing was done," giving us only his verbal permit "to build and try."

It was in no hasty moment that we entered upon this venture. My early schooling in paper-making was at the hands of my elder brother Stephen at his mill in Newton Lower Falls, where the quality of his product merited the patronage of the well-known engraver, Paul Revere. Further experience was gained at Worcester. So, when we found in Dalton a community to our liking and an abundance of crystal-clear water to give clarity to our paper, we boldly struck out for ourselves.

We are well satisfied with our situation and count ourselves fortunate to come into the possession of this favorable location at the beginning of the westward development of our commonwealth. The receipt of this deed, at the beginning of this new year, would seem a favorable omen, for it is our earnest hope that what we have begun here may long continue to serve this community and country, with ingenuity improving our methods and enterprise enlarging the variety of our papers.

Truly yours,

ZENAS CRANE

Dalton, Massachusetts

2 January 1802

* The original deed, signed by Martin Chamberlin and witnessed by Calvin Waldo, is extant and in the Crane Museum. The paper on which it was executed, and which has given it this longevity, was made from cotton and linen fibres. From these same enduring materials come Crane's Fine Papers today for documents, letters, tokens of value, and for many war-time needs, chief among them the War Bonds you buy that we may invade and crush the enemy and restore peace on earth.



Contents

Cambridge, Massachusetts - - - - Cover

Country Church in Winter,
New Canaan (Frontispiece) - - - - 8

Financial Implications of the Peace - - - - 9

14 IMPORTANT FINANCIAL RATIOS—36 INDUSTRIES

ROY A. FOULKE
Manager, Specialized Report Department
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Business Births and Deaths - - - - 16

TREND IS ANALYZED FOR 1942

WILLIAM HAYES
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The Trend of Business - - - - 19

Here and There in Business - - - - 24

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Frontispiece from Philip Gendreau.

The Cover

Cambridge, on the Charles River west of Boston, is one of the oldest towns in New England, having been settled in 1630. The section of the city centering at Harvard Square, has been a center of culture ever since the founding of Harvard in 1636. Adjoining is one of the most important commercial and industrial centers in Massachusetts.

The city is associated with such noted literary and scientific figures as Henry Wadsworth Longfellow, James Russell Lowell, Amy Lowell, Oliver Wendell Holmes, Louis Agassiz, John Fiske, and many others.

As long ago as 1850 there were glass industries in Cambridge employing 500 people. However, the rapid expansion of manufacturing began in 1912 when the opening of the subway brought the business section of Boston within three minutes of Cambridge.

The principal industries are the manufacture of soap, bakery products, confectionery, rubber goods, electrical machinery, foundry products, furniture, printing and publishing.

The population, as of 1940, was 110,879. According to the Federal Census of Manufactures, the city had 362 manufacturing establishments in 1939, employing 16,662 persons and producing goods valued at \$127,319,568. The city's 1,472 retail stores in 1939 had sales totalling \$46,620,000 and the 157 wholesale, \$65,935,000. The 685 service establishments had receipts of \$5,509,000.

The cover print was obtained through the courtesy of the Harvard University Library. The view, in 1831, is of Harvard Square, the church being the First Parish Meeting House (Congregational).

"FIRE POWER"—



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If you would like more information, write on company letterhead for Bulletin 18123.

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FREE LANCE PHOTOGRAPHERS GUILD

WITH the attention of business executives centered on post-war planning, Mr. Foulke throws illumination on the expected condition of Federal finances with the dawn of peace and suggests a course for business men to follow to preserve free enterprise. He likewise presents his annual report on important financial ratios of 36 manufacturing lines. Similar ratios for 24 wholesale lines appeared in November and those for 12 retail trades in October.

Financial Implications of the Peace

ROY A. FOULKE

Manager, Specialized Report Department
DUN & BRADSTREET, INC.

WITH a post-war gross public debt in excess of \$300,000,000,000 what will be our Federal budget one year after the end of the war in the Pacific? No one knows. Estimates, however, may be made even by laymen who have carefully followed the expenditures of the Federal Government in recent years, of the financial burden which private business will be called to bear if peacetime business resumes production and distribution, banking, finance, and service under traditional rules of risk, ambition, competition, and reward.

In the first place, it is evident that the first call on our national income will be greatly multiplied interest charges. In the second place, it is evident that we shall retain a larger standing army than during any previous peacetime period in our history. In the third place, with the mightiest navy afloat, it would seem evident that we will not repeat, at least immediately, the error of the Washington Disarmament Conference of 1922, and that the costs of maintaining and operating the greatest navy and the greatest merchant marine on the seven seas will be appreciably larger than during any pre-

vious peacetime period. In the fourth place, if the entire financial history of the United States is any criterion, it would seem evident that expenditures for pensions and for the care of veterans, within a few years, will again be headed for record expansion. In the fifth place, even though there might, by some rare chance, be a shift from the philosophy of the virtue of spending to the philosophy of Coolidge thrift in governmental operations, the great increase in civil employment and in the number of relatively new bureaus, agencies, corporate entities, and other appendages to the Federal Government, will involve added costs compared with the expenses of a decade or so ago. A budget, broken down into the more important broad divisions, as of a period one year after the armistice in Asia, might not vary too greatly from the following estimates:

	Billions
Interest on the National Debt . . .	\$7.5 to \$9.0
War Department	2.0 to 4.0
Navy Department	3.0 to 5.0
Merchant Marine	1.0 to 3.0
Veterans' Pensions and Benefits	1.0 to 2.0
Civil Departments and Agencies	1.5 to 2.0
Public Works	1.0 to 2.0
Social Security	3.0 to 14.0
	<hr/> \$20.0 to \$41.0

If our gross national debt does not greatly exceed \$300,000,000,000 one year after the end of the war, the annual interest carrying charge will be about \$7,500,000,000 at the average interest rate of 2½ per cent. If interest rates should rise to 3 per cent, the annual interest carrying charge would be in the neighborhood of \$9,000,000,000, or as much as the entire operating costs of the Federal Government per year during the pre-war New Deal period with its extensive programs of public works, relief, and social security. And that is only the initial call on taxes!

All other costs are in addition to this amount and include no estimate for the retirement of the national debt. After World War I, the national debt was retired at the rate of approximately \$1,000,000,000 a year during the prosperous decade of the lush twenties. In the coming post-war period, no hope for substantial retirement will exist unless the national income exceeds \$100,000,000,000 per year, since a minimum of 30 per cent of this income would be required merely to support the national, state, and local governments.

The estimate for the War Depart-

THE NATIONAL DEBT, 1789-1944

President	Year	Gross National Debt	Per Capita Debt	Significant Events Influencing National Debt	President	Year	Gross National Debt	Per Capita Debt	Significant Events Influencing National Debt	President	Year	Gross National Debt	Per Capita Debt	Significant Events Influencing National Debt
WILLIAM H. HARRISON	1841	\$5,250,000	\$.....		GROVER CLEVELAND	1893	\$961,431,000	\$4.49		THEODORE ROOSEVELT	1905	1,132,357,000	\$3.60	
JOHN TYLER	1842	13,594,000	\$19.32			1894	1,096,897,000	\$5.04	Decreasing Customs Receipts		1906	1,222,729,000	\$15.91	
GEORGE WASHINGTON	1792	77,222,000	\$.....	Years of Organization and Adjustment	1843	20,251,000	\$.....	Period of Nominal Public Debt		1896	1,226,793,000	\$17.14	Spanish-American War	
JAMES K. POLK	1845	15,925,000	\$.....		1844	23,461,000	\$.....			1897	1,232,743,000	\$16.90		
ZACHARY TAYLOR	1846	15,550,000	\$.....		1846	18,826,000	\$.....	Mexican War	WILLIAM MCKINLEY	1898	1,436,700,000	\$19.33		
MILLARD FILLMORE	1847	18,944,000	\$.....		1848	47,944,000	\$.....	Post-War Spending		1899	1,463,416,000	\$16.56		
FRANKLIN PIERCE	1849	63,061,000	\$.....		1849	63,061,000	\$.....			1900	1,221,572,000	\$15.71		
ABRAHAM LINCOLN	1850	63,452,000	\$2.30		1850	63,452,000	\$1.32			1901	1,178,031,000	\$14.89		
JAMES BUCHANAN	1851	68,304,000	\$.....		1851	66,199,000	\$.....	Industrial Expansion and Prosperity		1902	1,159,405,000	\$14.40		
FRANKLIN PIERCE	1852	59,804,000	\$2.36		1852	66,199,000	\$1.32			1903	1,156,259,000	\$13.88		
FRANKLIN PIERCE	1853	42,243,000	\$1.62		1853	42,243,000	\$1.62			1904	1,132,357,000	\$13.60		
FRANKLIN PIERCE	1854	35,588,000	\$1.32		1854	42,243,000	\$1.62			1905	1,142,522,000	\$13.50		
ABRAHAM LINCOLN	1855	31,974,000	\$1.15		1855	35,588,000	\$1.32			1906	1,147,178,000	\$13.33		
ABRAHAM LINCOLN	1856	28,701,000	\$1.01	Panic of 1857	1856	31,974,000	\$1.15			1907	1,177,690,000	\$13.46	Period of Public Debt Stability	
ABRAHAM LINCOLN	1857	44,913,000	\$1.53	Decreased Customs and Increase in Public Improvements	1857	28,701,000	\$1.01	Panic of 1857	THEODORE ROOSEVELT	1908	1,177,690,000	\$13.46		
ABRAHAM LINCOLN	1858	48,498,000	\$1.93		1858	44,913,000	\$1.53			1909	1,148,315,000	\$12.91		
ABRAHAM LINCOLN	1859	64,833,000	\$2.06		1859	48,498,000	\$1.93		WILLIAM H. TAFT	1911	1,153,984,000	\$12.28		
ABRAHAM LINCOLN	1860	90,532,000	\$2.83		1860	64,833,000	\$2.06			1912	1,193,838,000	\$12.48		
ABRAHAM LINCOLN	1861	524,177,000	\$16.03		1861	90,532,000	\$2.83		WOODROW WILSON	1917	2,975,618,000	\$28.57	World War I	
ABRAHAM LINCOLN	1862	1,119,733,000	\$33.56	Civil War	1862	524,177,000	\$16.03			1918	1,243,628,000	\$115.65		
ABRAHAM LINCOLN	1863	1,119,733,000	\$33.56		1863	1,119,733,000	\$33.56		WILLIAM G. HARDING	1921	2,979,625,000	\$221.09		
ABRAHAM LINCOLN	1864	1,851,830,000	\$53.33		1864	1,851,830,000	\$53.33			1922	2,296,679,000	208.97		
ABRAHAM LINCOLN	1865	2,677,929,000	\$77.07		1865	2,677,929,000	\$77.07			1923	2,349,687,000	200.10		
ABRAHAM LINCOLN	1866	2,752,763,000	\$77.69	Post-War Spending	1866	2,752,763,000	\$77.69			1924	2,251,120,000	186.86	The Great Prosperity	
ANDREW JOHNSON	1867	2,650,168,000	\$73.19		1867	2,650,168,000	\$73.19			1925	2,448,523,000	240.99		
ANDREW JOHNSON	1868	2,553,446,000	\$69.87		1868	2,553,446,000	\$69.87			1926	1,963,183,000	111.83		
ANDREW JOHNSON	1869	2,545,110,000	\$67.41		1869	2,545,110,000	\$67.41			1927	1,8510,174,000	156.04		
ANDREW JOHNSON	1870	2,436,453,000	\$63.19		1870	2,436,453,000	\$63.19			1928	1,760,429,000	146.69		
ANDREW JOHNSON	1871	2,322,024,000	\$58.70		1871	2,322,024,000	\$58.70			1929	1,693,197,000	139.40		
ANDREW JOHNSON	1872	2,209,990,000	\$45.44		1872	2,209,990,000	\$45.44			1930	1,618,508,000	131.49		
ULYSSES S. GRANT	1873	2,151,210,000	\$51.62		1873	2,151,210,000	\$51.62		CALVIN COOLIDGE	1926	1,963,183,000	167.70		
ULYSSES S. GRANT	1874	2,159,932,000	\$50.47		1874	2,159,932,000	\$50.47			1927	1,8510,174,000	156.04		
RUTHERFORD B. HAYES	1875	2,156,276,000	\$49.06		1875	2,156,276,000	\$49.06			1928	1,760,429,000	146.69		
JAMES A. GARFIELD	1876	2,130,845,000	\$47.21		1876	2,130,845,000	\$47.21			1929	1,693,197,000	139.40		
CHESTER A. ARTHUR	1877	2,107,759,000	\$45.37	26 Years of Almost Unbroken Reduction in Public Debt	1877	2,107,759,000	\$45.37		HERBERT HOOVER	1930	1,618,508,000	131.49		
RUTHERFORD B. HAYES	1878	2,151,912,000	\$47.37		1878	2,151,912,000	\$47.37			1931	1,680,485,000	135.37		
JAMES A. GARFIELD	1879	2,060,908,000	\$41.69		1879	2,060,908,000	\$41.69			1932	1,948,709,000	155.93		
GROVER CLEVELAND	1880	2,019,285,000	\$39.35		1880	2,019,285,000	\$39.35			1933	2,253,872,000	179.21		
CHESTER A. ARTHUR	1881	1,896,915,000	\$35.37		1881	1,896,915,000	\$35.37			1934	2,045,085,000	213.65		
CHESTER A. ARTHUR	1882	1,721,958,000	\$32.07		1882	1,721,958,000	\$32.07			1935	2,870,1,677,000	225.07		
CHESTER A. ARTHUR	1883	1,625,307,000	\$29.60		1883	1,625,307,000	\$29.60			1936	3,355,384,000	261.20		
CHESTER A. ARTHUR	1884	1,578,551,000	\$28.11		1884	1,578,551,000	\$28.11			1937	3,642,791,000	281.82		
CHESTER A. ARTHUR	1885	1,465,485,000	\$24.97		1885	1,465,485,000	\$24.97			1938	3,716,487,000	285.43		
CHESTER A. ARTHUR	1886	1,354,641,000	\$23.09		1886	1,354,641,000	\$23.09			1939	40,445,477,000	308.34		
CHESTER A. ARTHUR	1887	1,249,479,000	\$20.39		1887	1,249,479,000	\$20.39			1940	42,971,043,000	325.66		
CHESTER A. ARTHUR	1888	1,249,479,000	\$19,000		1888	1,249,479,000	\$19,000			1941	48,979,199,000	368.08		
CHESTER A. ARTHUR	1889	1,025,806,000	\$17.92		1889	1,025,806,000	\$17.92			1942	72,495,182,000	54.68		
CHESTER A. ARTHUR	1890	1,005,806,000	\$15.75		1890	1,005,806,000	\$15.75			1943	1,36,696,000,000 ¹	1,007.64		
CHESTER A. ARTHUR	1891	968,218,000	\$14.88		1891	968,218,000	\$14.88			1944	206,000,000,000 ²	1,486,000 ³	World War II	

¹ From "unrevised" Treasury figures. ² Treasury estimate. ³ Author's estimate.

ment is based upon the assumption that we shall maintain a standing army of one million to two million men during the post-war period, or until such a time as normal intercourse among the nations may be re-established.

The estimate for the Navy Department assumes the continued maintenance of the mightiest battle fleet in the world, and the facilities to repair and to replace naval losses faster than any other nation on the face of the earth. The post-war cost of our merchant marine, a by-product of the war, will depend upon policies still to be decided.

Veterans' pensions and benefits are likely to double. Such expenditures slightly exceeded one-half billion dollars in 1940 and have been expanding rapidly over the intervening years. On October 27, 1943, President Roosevelt recommended that Congress set up a \$1,000,000,000 post-war educational program offering vocational and academic training for one year to ex-service men and women.

Cost of Civil Government

In the civil end of the Government, the cost of the regular departments and agencies is estimated at \$1,500,000,000 to \$2,000,000,000 per year. The actual cost of these departments and agencies during 1942 was about \$1,450,000,000.

The cost of public works of one kind or another is estimated from \$1,000,000,000 to \$2,000,000,000. In the year before we entered the war, expenditures for public works reached \$950,000,000; since then spending for such purpose has tapered down to approximately one-half of this amount.

The social security program will entail immense expenditures if the broad recommendations of the National Resources Planning Board are put into effect. The Wagner-Dingell Bill proposes to extend social security to 15,000,000 persons now excluded, to include all soldiers after the war under unemployment insurance, to increase unemployment and old-age benefits, to establish national health insurance, to provide benefits for temporary and permanent disability, and to set up a unified federal insurance system.

Before World War I, during the fiscal year of 1914, the total expenditures of the Federal Government amounted to approximately \$700,000,000. Ten years later, during the fiscal year of 1924, after we had thoroughly settled down following the dislocations of

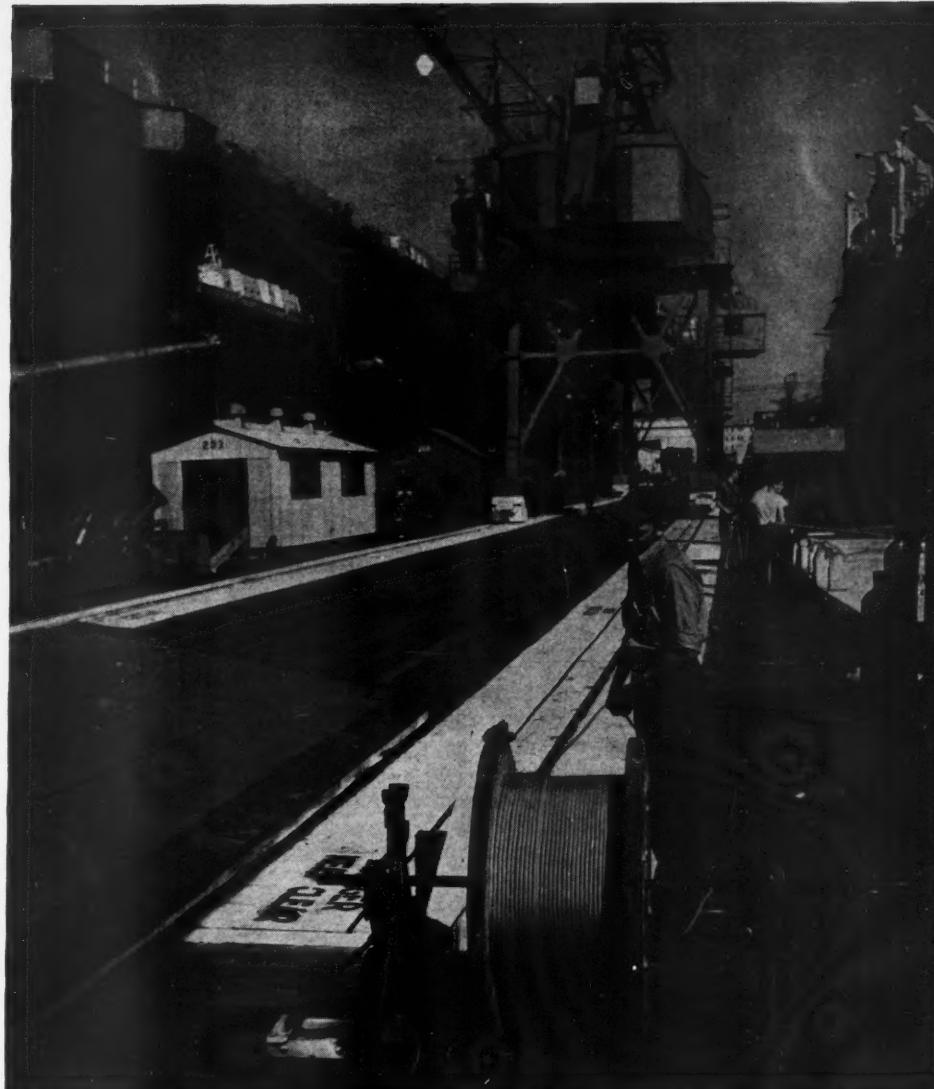


PHOTO FROM FREDERIC LEWIS

World War I, the expenditures of the Federal Government were in the neighborhood of \$3,000,000,000. In contrast to these sums, the minimum annual expenditures after we settle down from the dislocations of World War II, will be \$20,000,000,000.

Productive capital engaged in free business activity, in the production, the distribution, the financing, and the servicing of all kinds of goods is the ultimate source of all taxes, wages, salaries, rent, dividends, interest, profits, and annuities. No matter by what form savings are represented, by railroad, public utility, or industrial stocks and bonds, bank stocks, bank deposits, life insurance, or Government securities, the return flow of income can arise only out of the activity of capital. There is no other source. These broad estimates of tax requirements cover the prime minimum costs

of the operation of the Federal Government; they give no consideration to the additional taxes, in the neighborhood of \$10,000,000,000, which must also be collected annually to support all State and local units. Here is a grand minimum total of \$30,000,000,000 which must come directly or indirectly from business activity, annually.

At the end of World War II, our industrial and commercial life will go through a period of dislocating readjustments, a mixed condition of economic expansion and contraction in different areas, in different industries, and affecting individual business concerns in the same industry, differently. The length and the gradualness of this period will depend upon the distance between the ends of the two phases of the war, the European and the Asiatic phases; the gradualness with which war contracts are terminated by the

14 IMPORTANT FINANCIAL RATIOS—36 INDUSTRIES—1942

LINE OF BUSINESS	Current Assets to Current Debt Times	Net Profits on Net Sales Per Cent	Net Profits on Tangible Net Worth Per Cent	Net Profits on Net Working Capital Per Cent	Turnover of Tangible Net Worth Times	Turnover of Net Working Capital Times	Average Account Collection Period Days	Net Sales to Inventory Times	Fixed Assets to Tangible Net Worth Per Cent	Current Debt to Tangible Net Worth Per Cent	Total Debt to Tangible Net Worth Per Cent	Inventory to Net Working Capital Per Cent	Inventory Covered by Current Debt Per Cent	Funded Debts to Net Working Capital Per Cent
Automobile Parts and Accessories (72)	3.16 1.82 1.45	4.99 3.32 2.18	19.58 14.08 8.60	32.35 21.29 14.82	5.32 4.44 2.62	8.31 6.32 4.81	29 37 54	17.5 6.9 5.4	24.1 39.8 53.4	28.8 59.1 107.6	51.3 99.4 157.9	42.8 80.1 109.6	84.4 157.0 223.6	46.2 71.7 84.1
Bedsprings and Mattresses (39)	5.45 3.32 2.24	5.18 3.31 1.91	13.92 11.23 7.17	20.45 17.96 12.45	3.60 3.22 2.47	7.86 5.86 3.61	18 28 38	10.1 7.7 5.8	25.7 35.4 38.4	34.9 49.5 45.4	44.9 66.8 61.5	40.5 64.8 92.1	36.3 56.3 66.5	
Breweries (39)	2.35 1.93 1.40	5.41 4.24 2.70	14.85 12.38 5.25	75.60 64.60 39.03	3.27 2.66 1.63	32.80 19.33 8.27	6 17 37	18.7 14.0 10.8	62.5 85.5 43.4	19.1 27.4 6.3.3	25.0 93.1 156.8	55.9 130.2 179.9	54.8 92.2 108.5	
Building Contractors (111)	2.80 1.90 1.40	3.13 1.66 1.05	34.42 19.29 17.57	67.84 30.42 17.15	14.88 6.96 4.94	18.40 14.43 6.79	** ** **	** ** **	4.9 19.5 32.4	36.7 82.9 140.6	48.1 57.4 135.0	** ** **	15.5 50.4 61.0	
Chemicals, Industrial (56)	3.09 2.35 1.73	7.82 4.67 2.31	16.56 12.21 9.01	43.65 26.08 18.93	4.64 3.04 1.99	7.92 5.52 3.28	31 36 46	11.1 7.1 6.2	16.5 44.5 63.4	18.6 44.1 70.6	70.9 83.1 98.6	50.7 71.3 120.7	61.6 102.3 152.2	11.0 55.8 88.8
Cigars (22)	8.44 4.49 2.22	5.59 4.15 2.49	8.21 6.26 4.57	10.17 6.98 5.27	2.28 1.62 0.62	2.67 1.93 0.71	29 48 78	2.3 1.9 1.2	6.4 15.8 20.7	10.1 26.9 65.6	... 77.0 117.2	49.4 52.3 85.2	...	...
Clothing, Children's Dresses, Wash Suits (33)	2.95 1.96 1.62	3.14 2.09 0.83	13.68 9.00 6.55	14.64 11.98 8.49	10.77 6.33 3.46	7.58 6.33 5.76	22 28 43	16.5 8.6 5.2	2.6 4.9 13.2	42.4 94.3 89.4	57.7 96.3 130.9	88.6 130.4 159.8	72.4 96.3 159.8	...
Clothing, Men's and Boys' (223)	4.23 2.58 1.87	4.19 2.13 1.40	20.73 12.17 7.93	25.59 14.40 8.99	7.58 4.79 3.14	8.62 5.73 3.64	26 39 57	10.3 6.9 4.9	2.3 4.9 13.2	24.4 53.8 89.4	53.5 71.8 110.7	48.0 71.8 124.1	...	...
Coats and Suits, Women's (82)	3.02 2.09 1.68	2.49 1.93 1.16	22.35 16.12 8.73	27.20 18.62 9.65	9.38 6.97 4.48	10.72 8.49 4.84	21 30 41	23.5 10.9 7.6	3.1 5.2 9.8	37.2 84.3 124.5	47.1 76.0 113.5	73.9 115.6 173.7	...	...
Confectionery (51)	4.33 2.44 1.62	5.51 4.10 2.28	22.26 15.75 10.68	48.97 30.30 22.39	6.14 4.80 2.67	13.15 11.9 5.27	16 22 35	18.0 11.9 7.7	16.3 48.4 62.2	14.7 38.0 70.7	28.9 50.6 108.2	42.3 64.5 106.3	51.5 110.5 152.9	38.1 83.8 92.1
Corsets, Girdles and Brassieres (30)	3.90 2.67 2.09	4.85 2.77 1.18	18.45 12.35 7.45	27.44 17.64 12.88	5.96 4.94 4.56	7.32 6.17 5.93	16 33 55	8.7 6.8 5.5	5.9 11.1 28.3	24.0 45.5 68.8	75.6 84.1 119.4	46.2 62.2 93.2	...	...
Cotton Goods, Converters (48)	3.71 2.40 1.84	5.49 3.85 2.24	24.85 19.35 9.44	28.05 22.96 10.05	7.58 4.09 2.54	8.38 5.49 2.52	27 22 60	9.8 6.9 5.6	0.4 1.1 9.7	30.0 60.4 103.4	55.6 80.2 123.9	51.0 80.2 120.5	...	...
Dresses, Silk and Rayon (105)	2.72 2.02 1.64	3.48 1.75 0.66	23.69 13.84 7.26	29.85 16.87 8.49	8.78 6.80 4.71	11.60 8.19 6.09	21 34 46	18.6 9.9 7.7	3.6 7.4 12.4	45.9 81.1 124.9	42.5 69.6 113.1	96.4 134.8 185.3	...	...
Drugs (33)	5.17 3.20 2.25	9.06 5.11 2.67	21.87 13.28 8.61	31.45 20.33 11.86	3.95 2.56 1.62	5.71 3.43 2.77	35 50 65	6.4 5.2 3.9	11.1 25.1 39.6	16.7 32.0 53.0	53.5 78.8 95.1	36.2 65.3 88.2	...	...
Electrical Parts and Supplies (65)	3.37 1.91 1.43	5.05 3.31 1.96	25.40 14.13 7.75	57.60 22.44 12.19	5.95 3.47 2.14	11.98 5.19 3.26	28 34 61	22.6 6.0 4.2	22.9 35.0 50.6	29.7 67.2 153.7	35.4 57.6 140.3	57.4 88.7 157.6	71.2 111.0 166.7	10.4 11.6 29.7
Foundries (77)	2.42 1.57 1.25	4.39 3.59 2.81	20.96 14.62 8.60	82.15 45.38 21.48	5.02 3.90 2.63	19.97 11.13 6.67	26 34 46	16.9 11.1 7.0	48.2 56.5 70.9	36.1 67.1 99.9	50.1 108.9 125.3	56.4 86.0 146.4	111.7 187.7 299.9	21.0 82.8 108.8
Fruits and Vegetables, Canners (23)	3.38 1.93 1.26	8.65 3.99 2.52	37.45 9.92 8.67	79.40 40.12 15.32	8.43 3.99 2.83	26.73 11.86 4.56	8 19 32	8.8 7.3 3.7	43.8 62.1 67.9	22.5 50.8 112.0	49.7 124.6 239.2	60.4 80.1 185.6	73.7 111.8 158.0	17.3 79.4 85.2
Fur Garments (37)	8.81 2.81 1.61	2.61 1.45 2.22*	14.48 5.54 6.67*	15.20 4.66 9.78*	5.92 3.83 1.99	6.71 4.01 2.04	47 50 67	9.3 5.0 2.5	1.5 2.8 9.4	15.9 54.1 126.7	42.4 66.4 71.3	53.6 94.3 231.8	...	...
Furniture (113)	4.88 2.99 2.36	4.33 2.71 1.37	16.09 8.68 4.84	24.22 16.84 8.68	5.23 2.26 1.82	7.93 4.70 3.39	20 33 52	11.5 6.3 4.4	11.8 32.6 45.7	16.8 67.2 51.7	31.2 41.0 91.8	42.6 88.7 88.2	49.4 121.0 114.5	17.5 66.7 82.5
Hardware and Tools (69)	2.95 1.67 1.25	10.44 5.53 4.04	51.82 24.41 16.48	69.30 58.50 34.89	5.83 4.42 3.17	18.29 9.50 5.85	32 48 60	26.5 9.1 5.2	27.2 42.2 168.1	34.1 86.1 195.0	79.4 137.3 181.4	45.8 56.6 81.4	89.0 157.5 293.0	25.8 70.6 83.4
Hosiery (68)	4.15 2.52 1.73	7.52 3.69 2.55	20.18 12.53 7.12	35.55 26.72 12.95	4.62 2.34 1.82	8.35 5.73 3.09	18 31 41	9.7 8.0 6.2	31.2 47.5 58.9	16.0 36.6 66.9	36.0 50.6 110.0	44.7 72.7 136.7	60.7 99.0 88.8	37.0 72.9 88.8
Knitted Outerwear (71)	3.46 2.39 1.90	5.08 3.13 2.21	25.69 16.52 13.05	48.02 26.34 18.79	8.76 5.71 3.59	14.07 8.40 5.19	15 30 42	15.6 8.5 7.2	1.7 14.7 34.7	38.6 63.8 100.4	45.3 73.4 130.0	60.3 89.5 126.9	...	...
Leather Garments (25)	3.76 3.03 2.09	7.39 13.14 1.52	25.19 15.82 8.85	30.47 4.43 9.51	6.99 4.43 2.70	7.91 5.16 3.28	18 42 59	28.7 9.0 7.9	4.9 6.6 15.5	30.5 41.6 78.1	43.1 76.2 100.7	55.6 86.4 117.2	...	...
Luggage, Leather (22)	8.49 3.62 2.66	2.67 1.63 0.92	14.85 8.97 5.10	23.00 9.59 5.85	6.94 5.42 4.27	11.53 7.34 4.42	33 43 46	17.1 13.4 11.5	2.8 8.8 12.8	11.8 27.2 50.3	36.9 50.6 68.1	36.4 77.6 130.0	...	...

Army, the Navy, and the U. S. Maritime Commission; the gradualness with which our armed forces are demobilized; upon the decision as to what will be done with the tremendous inventories of war materials and supplies scattered from Attu to Guadalcanal, from Casablanca to Chungking; and the manner in which the Federal Government retires from the field of business, if it retires.

During this period of dislocating readjustments, industry will begin to produce the products on which a moratorium has existed since the early days of the war such as houses, automobiles, refrigerators, vacuum cleaners, washing machines, stoves, sewing machines, hairpins, nylon hose, clocks. Our entire manufacturing capacity will not be put to work, as a peacetime economy does not consume as fast as a wartime economy which is based on production for destruction. If, however, a substantial portion of our wartime capacity is put to work and no pragmatic arrangements for supporting trade are devised, it will not take very many years for production to catch up with our needs and then, as in the past, exceed demand at the existing level of prices.

Need Full Employment

Full employment and "good times," that is, a sustained level of net profits in industry and commerce, will be essential to furnish the absolute minimum of \$30,000,000,000 in annual taxes which will be needed to keep our gross national debt from rising, and to support all current operating expenses of the Federal Government, State, and local units. This tremendous sum includes no consideration for amortization which, heretofore, has been one of our oldest and strongest national fiscal policies.

Economists tell us that \$30,000,000,000 is one-half, one-third, or one-fourth of our national income, depending upon the year of comparison. The concreteness of \$30,000,000,000 is brought home more effectively by the repetition of the simple fact that the entire sum must come directly and indirectly from business.

It was important that integrated business management find the way out during the era of the Great Depression beginning in 1929 when our gross national debt was \$16,931,197,000; it will be many times more important for the preservation of capitalism and free en-

terprise for business management to find the answer to a reasonable level of sustained prosperity with little or no involuntary unemployment after this war, when our gross national debt will exceed \$300,000,000,000 and when our minimum complete annual tax budget will be one-tenth of that stupendous sum.

Integrated business management failed to find the answer during the depression years and it became necessary or politic for the Federal Government to take hold. We know now with what results. The gross national debt increased, year after year, by deficit spending to the record peak up to that time, of \$48,978,919,000 in 1941.

In the days of the Great Depression, liberal economists said we could support a gross national debt of \$50,000,000,000! One year after the end of World War II, our debt will be at least six times that amount, and no one has or will broadcast how easily business will support such a staggering debt. The fact is, it will not be easy, and if accomplished, it will be accomplished only by harnessing the integrated ability, ingenuity, sincerity of purpose, broad-mindedness, and skill of business management in solving problems in a practical way.

The mission of making the United States the "arsenal of democracy" involved vast problems that were solved

by business management. The magnitude of this over-all job is overwhelming. But it was accomplished in world record time.

When the peace finally comes over the horizon in Europe, and then in Asia, the problem of unscrambling Government and private business with Government owning one-quarter of all manufacturing facilities, the problem of disposing of plant facilities and the tremendous quantities of excess inventories, the problems incident to the termination of war contracts and of rationing, and the problems involved in demobilization, will be just as big as the earlier unprecedented problem of miracle production in world record time. Simultaneously, there will exist the great, over-all, fundamental, post-war problem of supporting a gross national debt which was beyond all comprehension three years ago.

Each and every one of these problems affect business; they will affect the level of prices, the level of production, the level of prosperity with net profits or loss at the end of the fiscal year, and the level of involuntary unemployment. Today they are abstract problems. Tomorrow, they become the actual daily problems of individual business managements. Small retail stores, medium-sized wholesalers, and large representative manufacturing corporations will feel their solid impact.

PHOTO FROM CHARLES PHELPS CUSHING



14 IMPORTANT FINANCIAL RATIOS—36 INDUSTRIES—1942 (CONTINUED)

LINE OF BUSINESS	Current Assets to Current Debt Times	Net Profits on Net Sales Per Cents	Net Profits on Tangible Net Worth Per Cents	Net Profit on Net Working Capital Per Cents	Turnover of Tangible Net Worth Times	Turnover of Net Working Capital Times	Average Account Collection Period Days	Net Sales to Inventory Times	Fixed Assets to Tangible Net Worth Per Cents	Current Debt to Tangible Net Worth Per Cents	Total Debt to Net Worth Per Cents	Inventory to Net Working Capital Per Cents	Inventory Covered by Current Debt Per Cents	Funded Debts to Net Working Capital Per Cents
Machinery, Industrial (295)	2.63	7.00	24.22	48.80	5.00	9.72	34	9.3	24.3	49.7	63.1	56.0	83.2	15.6
	1.73	5.01	16.87	28.52	3.38	5.66	50	5.7	39.1	75.0	120.2	84.3	148.1	63.6
	1.37	3.19	10.17	16.99	1.91	3.67	67	3.8	51.8	195.6	233.2	140.2	219.7	82.7
Metal Stampings (66)	4.20	4.94	17.86	49.55	5.26	9.50	25	16.5	27.4	18.9	52.0	32.4	82.6	19.3
	2.20	3.66	14.09	22.38	3.20	6.80	36	10.4	40.0	40.1	118.2	61.2	119.5	50.7
	1.50	2.62	8.54	14.78	2.44	3.65	53	6.6	57.8	97.3	200.9	99.9	196.6	60.6
Neckwear, Men's (42)	6.57	4.11	23.48	32.49	7.08	7.43	22	19.9	1.7	18.8	...	32.2	46.2	...
	3.21	1.95	8.08	8.88	4.66	5.39	48	10.3	5.5	40.3	...	50.4	92.5	...
	2.02	0.91	4.35	4.79	2.72	3.16	69	5.7	6.8	75.0	...	85.1	155.8	...
Paints, Varnishes and Lacquers (138)	5.90	4.75	12.83	19.80	4.00	5.40	25	7.6	16.7	13.6	28.2	54.9	30.9	38.6
	3.27	2.90	8.71	13.38	2.39	4.54	37	4.9	28.4	26.6	46.5	71.7	54.5	81.9
	2.37	1.87	5.02	7.93	1.59	3.30	51	4.1	44.0	46.1	66.7	93.1	85.7	96.5
Paper (46)	4.47	5.90	11.33	27.50	2.15	5.63	23	6.1	44.3	12.1	21.6	57.1	52.8	59.7
	2.64	4.31	6.77	18.66	1.52	4.95	31	5.0	66.4	19.9	53.2	75.7	57.4	89.1
	2.14	2.64	4.02	13.42	1.20	2.88	36	4.9	71.0	38.0	82.3	103.6	95.1	99.3
Paper Boxes (55)	3.82	5.51	11.96	29.10	3.09	7.72	22	10.3	34.4	17.5	38.1	45.9	66.4	42.4
	2.51	4.03	8.99	17.95	2.18	5.89	30	8.9	46.0	27.2	59.3	65.1	92.2	78.8
	1.79	1.54	2.61	10.52	1.67	3.91	48	8.1	65.4	58.5	76.4	106.6	127.7	124.8
Printers, Job (54)	4.94	4.22	11.02	25.20	3.65	13.09	27	**	21.0	11.0	28.2	**	**	63.9
	2.95	2.41	9.11	18.21	2.34	6.14	48	**	48.4	19.9	33.9	**	**	88.9
	2.03	0.93	2.35	8.19	1.61	3.39	61	**	64.2	43.1	60.5	**	**	91.5
Purses and Handbags, Leather (30)	2.74	2.65	18.12	22.99	16.84	18.62	27	15.8	5.1	50.0	...	53.0	83.4	...
	2.15	1.29	16.42	17.81	10.02	12.88	31	11.6	12.2	72.0	...	84.4	97.4	...
	1.74	0.88	12.09	13.78	8.40	8.71	37	9.5	18.6	114.7	...	108.1	136.4	...
Shirts, Underwear and Pajamas, Men's (61)	3.51	5.36	25.70	33.56	6.58	9.31	26	10.4	2.8	36.0	...	68.6	53.5	...
	2.21	1.68	10.67	14.78	4.96	6.30	42	6.6	9.2	64.1	...	94.2	87.6	...
	1.73	1.25	5.82	7.17	3.08	3.84	56	4.7	22.7	95.6	...	129.2	119.2	...
Shoes, Women's and Children's (74)	3.05	3.83	20.72	25.93	7.91	11.07	24	12.0	10.8	35.7	...	62.7	66.9	...
	2.11	2.37	12.30	15.12	4.91	6.47	28	8.2	22.0	68.1	...	97.7	85.8	...
	1.67	1.06	6.42	10.98	4.04	5.56	34	5.8	27.2	107.4	...	146.1	112.3	...
Silk and Rayon Piece Goods, Converters (47)	4.14	2.46	14.81	17.54	6.88	7.18	28	14.9	0.7	28.2	...	47.0	72.0	...
	2.21	1.80	8.30	9.45	4.42	5.02	37	11.2	1.2	65.6	...	70.3	98.7	...
	1.74	1.17	3.25	3.66	2.13	3.14	54	3.7	2.0	123.0	...	112.1	134.7	...
Underwear, Women's Silk and Rayon (78)	4.02	2.96	16.36	22.42	10.37	13.42	27	13.9	4.4	22.6	...	52.7	59.9	...
	2.26	1.70	11.00	12.22	6.70	8.46	34	10.4	10.4	59.5	...	77.4	97.9	...
	1.70	1.01	7.34	7.64	3.88	5.14	36	6.0	14.4	106.0	...	99.7	152.0	...

FOOTNOTES

† This percentage was computed only for those lines of business and for those years in which a reasonable number of concerns had outstanding long term liabilities.

* Loss.

** Building contractors and job printers have no inventories in the credit sense of the term. Building contractors carry materials to complete particular jobs on which they are working. They have no customary selling terms, each contract being a special job for which individual terms are arranged. Job printers only carry current supplies such as paper, ink, binding materials, and lead for typecasting.

EXPLANATIONS

PUBLISHED ANNUALLY—These ratios also are published in a pamphlet, this year under the same title as this article. The pamphlet includes the medians and quartiles for the 12 retail and 24 wholesale lines which were published in the October and November numbers of DUN'S REVIEW. In it are also the medians for the four preceding years and five-year averages for the 14 ratios for the several industries or trades. Similar pamphlets have been published annually for several years; they contain the 14 ratios beginning with the 1931 figures.

THE RATIOS—The center figure for each ratio (in darker type) is the median or "average." The other two figures (in italics) are quartiles; for each ratio they indicate the upper and lower limits of the experiences of that half of the concerns whose ratios are nearest to the median. When any figures are listed in order according to their size, the median is the middle figure (same num-

ber of items from the top and the bottom) and the quartiles are the figures one-quarter and three-quarters down the list.

REPORTING CONCERN—The number in parentheses after the name of the line of business is the number of concerns for which data were available.

DEFINITIONS

COLLECTION PERIOD—The number of days that the total of trade accounts and notes receivable (including assigned accounts and discounted notes, if any) less reserves for bad debts, represents when compared with the annual net credit sales. Formula—divide the annual net credit sales by 365 days to obtain the average credit sales per day. Then divide the total of accounts and notes receivable by the average credit sales per day to obtain the average collection period.

CURRENT ASSETS—Total of cash, accounts, and notes receivable for the sale of merchandise in regular trade quarters, inventory, listed securities when carried not in excess of market, and United States Government securities.

CURRENT DEBT—Total of all liabilities due within one year from statement date including current payments on serial notes, mortgages, debentures, or other funded debts. This item also includes current reserves such as reserves for taxes and reserves for contingencies set up for specific purposes, but does not include valuation reserves.

FIXED ASSETS—The sum of the depreciated book values of real estate, buildings, leasehold improvements, fixtures, furniture, machinery, tools, and equipment.

FUNDED DEBT—Mortgages, bonds, debentures, gold notes, serial notes, or other obligations with

maturity of over a year from statement date.

INVENTORY—The sum of raw material, material in process, and finished merchandise. It does not include supplies.

NET PROFITS—Profit after full depreciation on buildings, machinery, equipment, furniture, fixtures, and other assets of a fixed nature; reserve for taxes; reduction in the value of inventory to cost or market, whichever lower; charge-offs for bad debts; all miscellaneous reserves and adjustments; but before dividends or withdrawals.

NET SALES—The dollar volume of business transacted for 365 days net after deductions for returns, allowances, and discounts from gross sales.

NET SALES TO INVENTORY—The quotient obtained by dividing the annual net sales by the statement inventory. This quotient does not represent the actual physical turnover, which would be determined by reducing the annual net sales by the percentage of gross profit, and then dividing the resulting figure by the statement inventory.

NET WORKING CAPITAL—The difference between the sum of the current assets and the sum of the current debts.

TANGIBLE NET WORTH—The sum of all preferred stocks (if any) and common stocks, surplus, and undivided profits, less any intangible items in the assets, such as good-will, trade-marks, patents, copyrights, leaseholds, mailing lists, treasury stock, organization expenses, and underwriting expenses.

TURNOVER OF TANGIBLE NET WORTH—The quotient obtained by dividing the annual net sales by the tangible net worth.

TURNOVER OF NET WORKING CAPITAL—The quotient obtained by dividing the annual net sales by the net working capital.

If free business enterprise, directly or indirectly, foots the bill, then free business enterprise should accept the responsibility for the maintenance of the well-being of the democratic economy which it partly comprises and which it helped to create, for the broad public good, as well as for itself. That responsibility must, first of all, see that there is maintained a solid unquestioned basis for supporting a minimum annual taxation load of \$30,000,000,000 with honest dollars, and second, that tangible plans are created to prevent the rise of involuntary unemployment as our huge industrial, commercial, banking, and servicing machinery is converted from war to peace. If private enterprise is not successful in organizing to carry out some such planned program, and accordingly fails to carry out some such program, the Federal Government will, of necessity, step into the picture as it did so completely in 1933, and this time, on top of a debt in excess of \$300,000,000,000 and not a mere \$16,185,308,000. The ceiling above this plateau is relatively low.

Deficit Spending

If deficit spending again should be allowed by Congress and by free business enterprise to raise its ugly head in the guise of maintaining necessary employment, confidence in our financial future, in the economy which provided the background for the creation of our wealth and the miracle of war production, might well be viewed with deep apprehension. Even the richest country in the world, with economic legerdemain, and legislative sophistry, cannot maintain deficit financing *ad infinitum*; sooner or later, the end is loss of financial control which means economic and financial calamity, or a shift toward Government ownership of the means of production.

Here is the opportunity and the challenge to integrated business management, a challenge which is greater than any that has confronted free business since the rise of the industrial revolution. Today, in the life of our country, may well be as critical in our history as were the years immediately prior to the Constitutional Convention of 1787.

The establishment of a single integrated policy-making organization within private business, comprising and representing all private business on a representative democratic basis, is essential to plan for this great objective.

Such an organization would provide the medium, the technique, the means by which the immediate problems and other crucial problems, as they rise, would receive the continuous, concentrated attention of business men.

Business management must cope with the responsibility of another depression by the application of preventives, and an integrated policy-making organization representing all business would seem to be the logical medium through which to co-operate and to guide the energy and the potentialities of our business world to this dominant economic end. In the absence of such an organization, and with the development of a slump in business, irresistible political forces will provide additional deficit spending with concomitant greater and greater problems to business and to what, by that time, will be our debt-burdened economy.

Here is a job as fundamental in the light of our economy of free business enterprise as that solved by the fifty-five Founding Fathers who assembled in convention at Philadelphia in 1787 to give us our Constitution. We need a single-chambered Council of representative policy-making business men, of the caliber of these great men who planned our Constitutional government with such infinite care, men of wide and tried experience who will

represent all business, and who will meet day after day, week after week, month after month, in continuous session; business men who know what the solution of vital problems means to our industrialized economy, to venture capital, to ambition, to free enterprise, to democracy, to the support of a gross national debt in excess of \$300,000,000,000; men who will develop broad policies for business so there will be little or no involuntary unemployment, so that profits will be sustained, so that the level of business prosperity will not suddenly collapse.

We need a Permanent Council of Representatives of Free Business Enterprise that will be organized and supported by small business, big business, manufacturers, wholesalers, retailers, banking, insurance, transportation, and public utilities, to solve vital business problems within business, not for the sake of business, but for what the solution of these vital problems will mean to the future happiness, welfare, and prosperity of every man, woman, and child in this great country—our United States.

THE HISTORY of the Federal debt from 1790 to 1944 is discussed further, period by period, by Mr. Foulke in a pamphlet entitled "Financial Implications of the Peace," to be published about the first of the year.—EDITOR'S NOTE.

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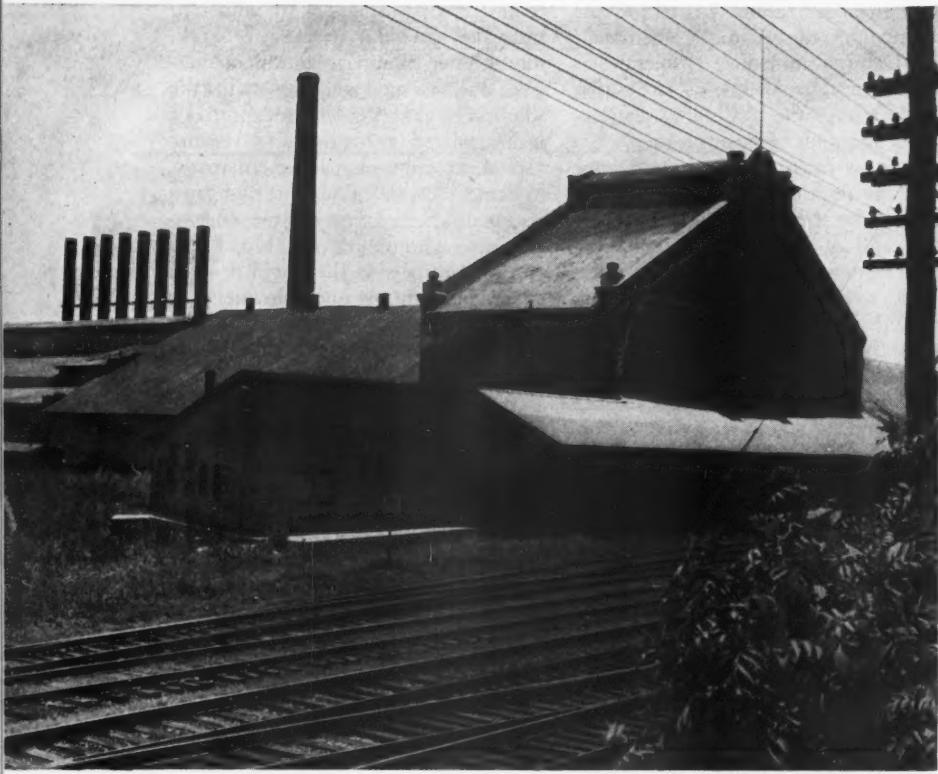
Coonley, Howard— <i>Simpler Things to Come</i>	Feb. 7
Johnston, Eric A.— <i>America Dreams A New Frontier</i>	July 7
Manpower	
Can We Allot Manpower by Voluntary Methods?.....	May 15
Dayton-Springfield Solves Man-power Problems.....	Oct. 10
Patterson, Robert P.— <i>Renegotiation: What It Is; How It Works</i>	Jan. 8
Post-War Planning	
Committee Plans to Win the Peace	June 7
Community Plans Peacetime Jobs	Aug. 10
Complacency, Your Competitor and the Post-War Market.....	Apr. 11
Let's Tackle the First Post-War Problem Now.....	May 7
What Are the Post-War Prospects for Business in This Country?..	Sept. 7
Ruml, Beardsey— <i>Moving the Tax Clock Ahead to War Time</i>	Mar. 7
Schell, Erwin H.— <i>Long-Term Company Planning</i>	Jan. 17

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BUSINESS BIRTHS and DEATHS

WILLIAM HAYES

Research and Statistical Division
DUN & BRADSTREET, INC.

ABOUT this time last year the business community was repeatedly told by different observers that 300,000 concerns would go out of business by the end of 1943. Usually this was understood as meaning that there would be 300,000 concerns less in business at the end of the year than at the beginning.

It now appears that the actual decline in business population in 1943 was only about 137,500 concerns or less than half the number forecast, as measured by the statistics compiled by DUN & BRADSTREET from changes in the number of names listed in its Reference Book of commercial and credit ratings.

The substantial error by the 1942 forecasters apparently resulted from their mistaking normal mortality for

a net change in population and forgetting that in business, as in human affairs, births as well as deaths affect the population.

Had it not been for this mistake, the prediction would have been remarkably accurate. The DUN & BRADSTREET Reference Book statistics show that there were approximately 300,300 "business deaths" or names dropped from the book during 1943. But these were offset by 162,800 names added, which may be considered the "business births" for the year.

The Reference Book (which is revised every two months) does not claim to list all the business enterprises in the United States, but it includes such a large fraction of them that changes in its listings are believed valuable not

only as indicators of trends, but also as tested measures of the extent of changes in the business population.

These figures on Reference Book changes, it needs to be remembered, are not collected primarily as statistics. Instead they are by-products of the service furnished by DUN & BRADSTREET. They are, therefore, subject to certain limitations which should be taken into account by those interpreting or using them. These limitations are set forth on page 18 wherein are described the characteristics of DUN & BRADSTREET Reference Book change figures.

The decline in the business population of the United States in 1943, although smaller than popularly expected, was nevertheless substantial. Moreover, it was a continuation of a decline begun a year earlier, shortly after the entry of the United States into the war. During 1942, there was a decline of about 3 per cent in the number of names listed, which brought the figure back to the level of September 1939. The drop in the last twelve months was twice as large, 6½ per cent of the names listed. It erased most of the gain recorded from September 1934 to September 1939; the number of names listed in the Reference Book for November 1943 is the smallest in nine years.

There are some signs, however, that the decline may be nearing its end. Thus far it has been the result of an unusually small number of business births, obviously because the energetic young men who would ordinarily start new enterprises are now otherwise engaged with the armed forces or in war plants. During 1943, however, the business birth rate showed signs of stabilizing and the number of new names recorded in the Reference Book in November 1943 was only 3 per cent less than in November 1942, the smallest difference from a corresponding month in the previous year since 1941.

Different Classification

Tabulation of business births and deaths by trades and industries, as has been done in the accompanying table, shows these developments more clearly and in more detail. A similar tabulation was published on page 17 of DUN'S REVIEW for November 1942. The figures for 1942 in the present table differ from those published last year because the present table classifies the concerns by the Standard Industrial Classification used in many Government statis-

tics and in many business statistics. The figures for 1941 and 1942 have been re-tabulated by this new classification to permit comparison with those for 1943. The 1941 figures are not published here; they are available on request to the editors of DUN'S REVIEW.

In addition to showing the number of business births and deaths by lines, the table also gives the net change (deaths minus births or vice versa) for each line, expressed as a percentage of the total number of business enterprises in that line listed by the Census of Manufactures or the Census of Business for 1939. The 1939 figures are the most recent complete data available and they probably still reflect fairly accurately the relative number of enterprises in each line.

Manufacturing Favored

Manufacturing continues to be the field of economic activity most favored so far as population decreases go. This is to be expected in view of the demand for output and still more output which characterizes modern warfare. The rate of decline in population, never as rapid as in retailing and wholesaling, was, in the Summer of 1943 only about one-third that of the previous year.

The only two manufacturing groups which enjoyed the substantial increases in business population in the Summer of 1943—machinery and transportation equipment—were war stimulated lines which had also registered increases in the previous two Summers. Manufacturers of transportation equipment include ship repair plants and makers of ships and aircraft. Slight gains in population are also noted in such civilian lines as textiles, apparel, and leather. But the typical experience of manufacturing lines continued to be loss of population.

The group of manufacturing industries which lost population most heavily in the Summer of 1943 was a non-war line—tobacco products—in which there were declines also in the two previous Summers. Other substantial net declines in the business population in the Summer of 1943 were noted in the industrial groups: automobiles and parts; rubber and rubber products; and petroleum and coal.

Manufacturing lines in which the 1943 declines were not particularly spectacular but in which these declines marked a continuation of trends established in the two previous Summers were pretty much devoted to civilian

TREND OF BUSINESS BIRTHS AND DEATHS

(As indicated by number of names added to and removed from Reference Books)

	NAMES ADDED (Births)		NAMES REMOVED (Deaths)		RATE OF NET CHANGE*	
	July-Aug. 1942	Per Cent Change	July-Aug. 1942	Per Cent Change	July-Aug. 1942	1943
MANUFACTURERS						
Food	520	471 - 9	580	650 + 12	-0.12	-0.35
Tobacco Products	11	16 + 45	37	40 + 8	-3.40	-3.14
Textiles	209	143 - 32	203	113 - 44	+0.09	+0.47
Apparel	310	497 + 60	410	444 + 8	-0.49	+0.26
Lumber and Timber	432	347 - 20	367	375 + 2	+0.56	-0.24
Furniture, Lumber Products	97	169 + 74	197	173 - 12	-1.18	-0.05
Paper, Printing, and Publishing	386	341 - 12	602	584 - 3	-0.77	-0.86
Chemicals and Drugs	198	146 - 26	267	167 - 37	-0.75	-0.23
Petroleum and Coal	19	18 - 5	32	30 - 6	-1.31	-1.21
Rubber	22	14 - 36	32	20 - 37	-1.68	-1.01
Leather, Leather Products	51	64 + 25	63	60 - 5	-0.34	+0.11
Stone, Clay, and Glass	91	118 + 30	122	141 + 16	-0.44	-0.33
Iron and Steel	172	169 - 2	220	209 - 5	-0.53	-0.44
Non-ferrous Metals	78	123 + 58	112	112 0	-0.61	+0.20
Machinery	321	380 + 18	232	206 - 11	+0.94	+1.83
Electrical Machinery	85	64 - 25	83	68 - 18	+0.10	-0.20
Transportation Equipment	82	70 - 15	35	38 + 9	+4.86	+3.31
Automotive	11	10 - 9	19	29 + 53	-0.71	-1.68
All Other Manufacturers	196	313 + 60	315	237 - 25	-1.55	+0.99
TOTAL MANUFACTURERS	3,291	3,473 + 6	3,928	3,696 - 6	-0.35	-0.12
WHOLESALEERS						
Groceries, Food Specialties	363	342 - 6	562	520 - 7	-1.24	-1.11
Farm Products	217	195 - 10	279	209 - 25	-0.48	-0.11
Beer, Wine, and Liquor	91	64 - 30	119	91 - 24	-0.45	-0.43
Dry Goods and Clothing	126	253 + 101	139	222 + 60	-0.16	+0.37
Lumber and Building Materials	68	80 + 18	95	122 + 28	-0.82	-1.27
Paints, Chemicals, and Drugs	60	50 - 17	73	69 - 5	-0.39	-0.58
Petroleum and Coal	233	187 - 20	339	330 - 3	-4.83	-6.52
Automotive	85	88 + 4	178	144 - 19	-1.17	-0.70
Hardware, Plumbing and						
Heating Supplies	32	44 + 38	56	55 - 2	-0.67	-0.31
Machinery and Equipment	42	89 + 112	63	81 + 29	-0.32	+0.12
Miscellaneous Supplies	116	68 - 41	144	122 - 15	-0.90	-1.73
Electrical Goods	39	29 - 26	107	51 - 52	-2.21	-0.72
Tobacco Products	19	18 - 5	18	28 + 56	+0.04	-0.37
Paper and Its Products	45	42 - 7	59	35 - 41	-0.48	+0.24
All Other Wholesalers	277	314 + 13	293	374 + 28	-0.08	-0.31
TOTAL WHOLESALEERS	1,813	1,863 + 3	2,524	2,453 - 3	-0.70	-0.58
RETAILERS						
Food	6,930	4,184 - 40	9,628	9,501 - 1	-0.48	-0.95
General Mdse., Gen'l Stores	1,563	1,191 - 24	2,423	2,469 + 2	-0.96	-1.42
Apparel	1,247	916 - 27	1,896	1,749 - 8	-0.61	-0.78
Furniture, House Furnishings	393	361 - 8	607	607 0	-0.67	-0.77
Radios, Elec. and Gas Appl.	150	98 - 35	820	474 - 42	-3.20	-1.80
Motor Vehicles	266	358 + 35	1,381	827 - 40	-2.75	-1.16
Auto Accessories and Parts	159	183 + 15	414	324 - 22	-1.30	-0.72
Filling Stations	2,749	2,300 - 16	6,349	5,398 - 15	-1.49	-1.28
Drug Stores	621	604 - 3	871	792 - 9	-0.43	-0.32
Restaurants, Drinking Places	4,604	2,849 - 38	4,993	4,643 - 7	-0.13	-0.59
Hardware and Farm Impl'ts	298	312 + 5	633	651 + 3	-0.84	-0.86
Lumber and Building Materials	347	271 - 22	584	646 + 11	-0.60	-0.95
Packaged Liquor Stores	427	209 - 51	395	337 - 15	+0.17	-0.67
Farm and Garden Sup. Stores	357	330 - 8	324	345 + 6	+0.67	-0.31
Florists	160	111 - 31	224	186 - 17	-0.40	-0.47
Cigar Stores	221	129 - 42	322	330 + 2	-0.55	-1.09
Jewelry Stores	160	155 - 3	274	232 - 15	-0.78	-0.53
Fuel and Ice Dealers	249	204 - 18	402	435 + 8	-0.37	-0.56
Gift and Novelty Shops	124	105 - 15	176	182 + 3	-0.70	-1.04
All Other Retailers	485	466 - 4	734	844 + 15	-0.27	-0.40
TOTAL RETAILERS	21,510	15,336 - 29	33,450	30,972 - 7	-0.67	-0.88
SERVICES						
Garages	580	570 - 2	1,472	1,452 - 1	-1.57	-1.56
All Other Services	3,384	3,294 - 3	4,479	4,618 + 3	-0.19	-0.22
TOTAL SERVICES	3,964	3,864 - 3	5,951	6,070 + 2	-0.31	-0.34
GRAND TOTAL	30,578	24,536 - 20	45,853	43,191 - 6	-0.57	-0.69

* These two columns show the difference between business births and deaths (names added and names removed) expressed as a percentage of the business population as shown by the Census of Manufactures, 1939 and the Census of Business, 1939.

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PHOTO BY CHARLES PHELPS CUSHING

DUN & BRADSTREET Reference Books are issued every two months, and although they do not cover the entire economic system, they probably reflect the trends of the system. In general the business enterprises listed in the Reference Books include business of the type which **DUN & BRADSTREET** observes—mostly industrial and commercial enterprises. They do not include financial institutions, railroads, or many types of service organizations, since these enterprises and institutions are generally not applicants for commercial credit. Nor is a lawyer, a doctor, or a farmer considered as a business enterprise here. Chain stores appear as single concerns; the individual retail stores are not listed separately.

Every time somebody takes a new risk because of change in ownership of a concern or a change in its legal form of organization it becomes a new enterprise from the point of view of credit. The concern may appear as both a name removed and a name added. It is expensive and unwieldy to eliminate these "successions" which, previous studies indicate, account for about 40 per cent of the "names added." Consequently, both the birth and death tabulations which accompany this article contain an underlying stratum of successions which is assumed to be reasonably constant.

Reporting procedure results in a slight time lag and a few omissions. Because they do not ask immediately for credit some new concerns in large cities are not added promptly to the Reference Book; similarly some births in small communities are not listed until the reporter makes his periodic trip through that territory. Finally, a scattering of small ventures, such as one-man cigar stands in large cities, never ask for credit; hence never appear in the Reference Book at all.

DUN & BRADSTREET learns promptly of most business deaths from its reporters who note such fatalities as a part of their reporting function. Of some disappearances, unpublicized or upon which there are no credit inquiries, it may not learn until the following January when a request for a financial statement is returned by the post office undelivered. Thus the number of previously unheralded demises reported in the March, May, and July Reference Books in each year is slightly larger than in the other three issues.

In both names added and names removed the errors and time lags are relatively constant and do not affect comparisons between areas and comparisons with the same month of another year.

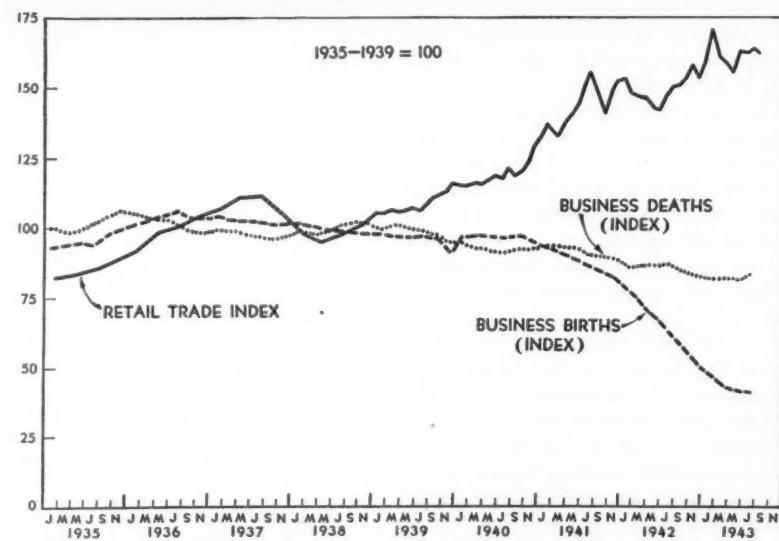
products. They included the groups: food; paper, printing, and publishing; chemicals and drugs.

Wholesale lines which increased their populations in the Summer of 1943 included the machinery, the dry good and clothing, and the paper products groups of lines, but in all of these the gains were so small as to be without particular significance.

The largest proportionate loss of population in any of these groups (manufacturing, wholesaling, or retailing) in the Summer of 1943 was suffered by wholesalers of petroleum and coal, which also topped the list of losses in the corresponding period of 1942. There was a smaller but nevertheless important loss of population in the wholesaling of lumber and building materials. The rather sharp decline in population in the most recent period for wholesalers of miscellaneous supplies may possibly be accounted for by the small size of many of these enterprises and the relatively narrow profits to be had. "Miscellaneous supplies" as used in this tabulation include janitors' supplies, beauty and barber shop supplies, laundry and dry cleaning supplies, and so on.

Declines in population in each of the last three Summers are noted among the groups of wholesaling lines: groceries and food specialties; beer, wine,

(Continued on page 37)



The number of businesses in the United States has dropped by 137,500 from the Summer of 1942 to that of 1943 as measured by the number of listings in the **DUN & BRADSTREET** Reference Book, a guide subject to the qualifications summarized at the left. Business "births" and "deaths" as charted here are one year moving averages of the changes for the bi-monthly Reference Books; the changes in the September book, for instance, are those reported in July and August. The retail trade index is that of the U. S. Department of Commerce adjusted for seasonal variation as recently revised; the data shown is by quarters 1935-1938, monthly thereafter.

THE TREND OF BUSINESS

SUMMARY: Industrial activity reaches a record high as output of war goods continues to hit new peaks. The largest payroll increases are for durable goods lines. Holiday buying lifts retail sales volume well above last year's high levels. Security prices moving in a lower range.

INDUSTRIAL activity continues at a high level with output of some war goods hitting new peaks. October established a new peak for industrial production as output remained high for the third consecutive month. The seasonally-adjusted Federal Reserve index (1935-1939 = 100) rose to 245; 1 point above September, 18 points or 8 per cent above last January, and almost doubled 1940 levels. In most industries backlog of orders continue to increase.

This high rate of activity was reflected in many industries. Output of machinery and transportation equipment continues upward, as it does also in non-ferrous metals and products lines. An all-time record steel output of 7,786,359 net tons in October was 115,000 tons over the previous peak in March, and 3 per cent above the October 1942 output of 7,579,514 tons. New bookings were generally in excess of shipments.

Output of munitions during October reached the highest level since last April, according to the War Production Board. Aircraft production in-

creased in number by 11 per cent, with ship construction up 5 per cent, ammunition output up 11 per cent, and communication and electronic equipment up 9 per cent; combat vehicles registered the anticipated decline.

Non-durable Production—In most non-durable goods lines activity changed little in October. Food output remained large; especially meat packing and wheat flour. In the textile industry, production continues to be largely on Government orders; backlog have decreased in the past few months, but still remain over pre-war levels. Cotton consumption in October dropped to 850,000 bales or 3 per cent below September's 872,000 bales, 13 per cent below the 973,000 bales of October 1942.

Although construction contracts awarded increased about 22 per cent in October and were 71 per cent below the same month last year, value of building permits rose only moderately to \$48,286,921, 12 per cent above the September figure, and 8 per cent greater

than the \$44,707,721 registered in the same period a year ago. Except for April and August, October permits were the largest since September 1942.

Manufacturers' inventories at the close of September rose to a peak level of \$17,700,000,000; a monthly gain of \$100,000. The increase in the third quarter was sufficient to offset the decrease in the first half of this year. During the first nine months of the year stockpile values went up in comparison \$50,000,000, with the rise of \$1,700,000,000 in the same period of last year.

Employment—The high production record is clearly reflected in factory employment and payrolls which have continued upward over the past months. The largest swell was in the durable goods lines, but the rise in industrial employment was supported by some seasonal expansion of retail employment. Retailers are more limited in their selection of help for the holiday season this year; they have been obliged to hire from among those of school age.

Industrial Production

Seasonally Adjusted Index: 1935-1939 = 100; Federal Reserve Board

	1940	1941	1942	1943
January	122	143	181	227
February	117	147	183	232
March	114	152	186	235
April	114	149	184	237
May	118	160	191	238
June	123	164	193	237
July	123	166	197	239
August	126	167	204	242
September	129	169	208	244
October	122	172	215	245
November	136	174	220	
December	140	176	223	

Retail Sales

Seasonally Adjusted Index: 1935-1939 = 100; U. S. Dept. of Com.

	1940	1941	1942	1943
January	115.6	133.1	153.2	159.2
February	115.1	137.1	148.3	170.4
March	116.0	133.0	147.6	159.2
April	115.5	131.0	147.0	159.2
May	117.1	136.0	148.4	155.3
June	119.5	144.4	141.8	163.0
July	118.8	149.1	147.6	162.5
August	121.8	155.0	150.3	163.7
September	119.3	147.4	150.9	162.1
October	121.3	141.6	154.3	166.0
November	124.8	149.0	158.2	
December	129.2	152.1	153.9	

Employment

Millions of Persons: U. S. Bureau of Census

	1940	1941	1942	1943
January	45.3	48.9	51.0	
February	45.7	49.4	50.9	
March	45.8	50.9	51.0	
April	45.1	46.8	50.7	
May	46.3	48.5	51.1	
June	47.6	50.9	53.3	53.4
July	47.6	51.0	54.0	54.3
August	47.7	51.0	54.0	53.9
September	47.9	50.3	52.4	52.5
October	47.0	50.2	52.4	51.9
November	46.3	50.2	52.8	
December	46.3	50.2	51.9	

Cost of Living

Index: 1935-1939 = 100; U. S. Bureau of Labor Statistics

	1940	1941	1942	1943
January	100.8	112.0	120.2	
February	100.8	112.9	121.0	
March	101.2	114.3	122.8	
April	102.3	115.1	124.1	
May	102.9	116.0	124.0	
June	104.6	116.6	124.8	
July	105.2	116.9	124.8	
August	106.2	117.4	123.9	
September	100.4	108.1	117.8	123.9
October	100.3	109.3	110.0	124.4
November	100.1	110.2	119.8	
December	100.7	110.5	120.4	

Wholesale Commodity Prices

Index: 1940 = 100; U. S. Bureau of Labor Statistics

	1940	1941	1942	1943
January	79.4	80.8	96.0	101.9
February	78.7	80.6	96.7	102.5
March	78.4	81.5	97.6	103.4
April	78.6	83.2	98.7	104.2
May	78.4	84.9	98.8	104.1
June	77.5	87.3	98.6	103.8
July	77.7	88.8	98.7	103.2
August	78.4	90.3	99.2	103.1
September	78.0	91.8	99.6	103.1
October	78.7	92.4	100.0	
November	79.6	93.5	100.2	
December	80.0	93.6	101.0	

Industrial Stock Prices

Monthly Average of Daily Index: Dom-Jones

	1940	1941	1942	1943
January	147.60	130.17	111.11	121.53
February	147.29	121.68	107.48	127.40
March	127.13	122.52	101.63	131.15
April	118.91	119.10	97.79	
May	131.46	116.2	98.42	138.60
June	115.16	115.7	103.75	141.25
July	122.23	127.57	106.94	142.90
August	125.32	126.67	106.30	136.54
September	131.46	127.35	117.37	138.00
October	132.39	121.18	113.51	138.25
November	133.90	116.91	115.31	
December	130.45	116.67	117.16	132.66

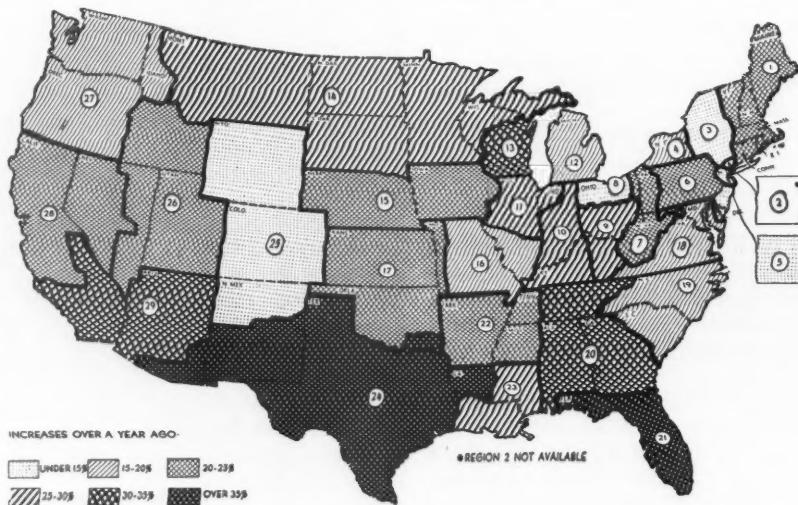
* Approximation; figure from quoted source not available.

TRADE REPORTS FROM TWENTY-NINE REGIONS

Barometers compiled by L. D. H. Weld, Director of Research, McCann-Erickson, Inc.

THIS information on regional trade activity is based upon comments of business men, gathered and weighed by local DUN & BRADSTREET offices. More detailed data, formerly in DUN'S REVIEW, are now available in DUN'S STATISTICAL REVIEW; a change necessitated by paper limitations. Payroll, employment, and farm income figures are from Government sources.

The barometers used below are adjusted for seasonal variation; the monthly average for the years 1928-1932 inclusive equals 100. Both adjusted and unadjusted barometers may be obtained in advance of publication by special arrangements with the editors.



	Change Sept. from 1943	Change from Sept. '42	Change from Aug. '43	HIGHLIGHTS OF TRADE ACTIVITY
UNITED STATES	158.2	+23.2	+10.1	Monthly barometer reached a new peak of 158.2 in September. Ten regions had increases greater than the country; 19 had smaller gains.
1. NEW ENGLAND	130.2	+20.9	+18.6	Farm income registered a 26% gain over 1942. Large monthly retail trade gain exceeds country rise. Shipbuilding and other war industries continue at peak production. Harvesting of most crops reported good.
2. NEW YORK CITY	Index not available.			Gain in retail sales volume over 1942 moving upward. Wholesaling well maintained by heavy reordering of holiday goods and early Spring orders. Hotel business continues to boom.
3. ALBANY, SYRACUSE	140.0	+9.0	+3.1	Retail trade gains over 1942 small compared with nation. New York milk production below both last month and year. Albany, Syracuse industrial employment gains leveling off.
4. BUFFALO, ROCHESTER	126.5	+15.4	-1.1	Monthly retail trade decline pulls barometer below country for first time in five months. Industrial employment gains narrowing. Buffalo steel mills operating at high level.
5. NORTHERN NEW JERSEY	127.4	+13.3	+6.8	Monthly barometer gain drops below country for first time in three months. Shipbuilding and other war production at high levels; employment gains over 1942 narrowing.
6. PHILADELPHIA	138.3	+20.5	+16.5	Industrial employment in Pennsylvania continues above 1942, but gains narrowing; payrolls about 20% above 1942. Monthly retail trade gain well ahead of national increase.
7. PITTSBURGH	149.2	+20.8	+15.7	Monthly barometer gain large; yearly increase continues to lag behind country. Pennsylvania farm income in August 17% above 1942; crop output good.
8. CLEVELAND	171.7	+13.7	+5.5	Monthly and yearly barometer gains less than country increases. Industrial employment leveling off well above 1942. Steel mills in Cleveland operate at 97% of capacity.
9. CINCINNATI, COLUMBUS	186.5	+25.4	+16.3	Industrial production continues at high level; employment in Cincinnati and Columbus about 15% ahead of 1942. Ohio farm income gain in August 8% over 1942.
10. INDIANAPOLIS, LOUISVILLE	206.1	+27.9	+4.5	Large gain over 1942 in retail trade. Manufacturing continues at peak levels although employment gains generally narrowing at levels well above 1942.
11. CHICAGO	144.2	+26.5	+15.3	Industrial production registers little change from last month's high level; employment gains continue about 10 to 15% above 1942. Record hog run in Chicago packing-houses.
12. DETROIT	194.7	+16.1	+4.8	Retail trade gains over 1942 were smaller than country. Manufacturing continues at high level. Agricultural yield good; Michigan farm income in August 26% above 1942.
13. MILWAUKEE	192.3	+33.6	+15.2	Third greatest barometer gain over 1942 registered here. Wisconsin farm income gain about equal to country; greatest gains over 1942 from milk, corn, soybeans, and fruit crops.
14. MINNEAPOLIS, ST. PAUL	156.6	+26.8	+9.4	Farm income gain over 1942 continues high. Minneapolis and St. Paul industrial employment up about 30 and 20% respectively. Retail trade increase remains high.

	Change Sept. from 1943	Change from Sept. '42	Change from Aug. '43	HIGHLIGHTS OF TRADE ACTIVITY
15. IOWA, NEBRASKA	154.6	+23.5	+4.3	Barometer gain over 1942 equal to national increase. Iowa farm income in August up 37% over 1942; Nebraska up 36%. Industrial employment in Des Moines up about 35%; Omaha up 10%.
16. ST. LOUIS	137.8	+18.0	+3.0	Missouri farm income in August 19% ahead of 1942. Fall rains aided most crops but cotton and fruit below 1942 output. Barometer gains over last month and year were small.
17. KANSAS CITY	166.5	+23.5	+6.6	Record hog run reported, due to feed shortages as the continued dry season unfavorably affects range and crop conditions. Industrial employment in the area continues to boom.
18. MARYLAND, VIRGINIA	202.9	+19.7	+12.7	Monthly barometer gain exceeds country rise. Serious decline in peach production pulls Virginia crop receipts below 1942; income from tobacco up considerably.
19. NORTH, SOUTH CAROLINA	216.2	+15.9	+2.2	Small gains recorded for farm income in the Carolinas. Barometer increase over 1942 less than country. North Carolina hourly earnings continue to rise.
20. ATLANTA, BIRMINGHAM	241.8	+33.5	+9.0	Large yearly increase in retailing. Early frosts in Alabama hamper vegetables; Georgia cotton and corn crops good; sweet potato harvest delayed.
21. FLORIDA	298.3	+42.0	-1.5	Largest yearly increase in barometer here; monthly change, however, registers greatest of only three declines in country. Value of citrus fruit harvest at record peak.
22. MEMPHIS	200.6	+22.5	+11.7	Yearly and monthly barometer gains about same as country. Farm income in Tennessee up 21%; over-all need of more moisture. Wholesale trade registers good gains.
23. NEW ORLEANS	191.5	+28.3	+15.2	Excellent gains in retailing over both last month and a year ago. Wholesaling up 25% in New Orleans; Jackson up 12%. Industrial production and employment high.
24. TEXAS	239.6	+42.2	+5.5	Second largest yearly barometer gain here; new synthetic rubber plant boosts employment further. Range conditions improved; cotton output below 1942; corn production up.
25. DENVER	178.0	+10.5	+9.7	Yearly barometer increase second smallest in nation. Industrial employment in Denver about 7% above 1942. Colorado farm income up 41%; New Mexico up 49%.
26. SALT LAKE CITY	194.9	+21.4	+11.0	Very large gain in Utah farm income for August. Salt Lake City industrial employment continues above 1942, but gains are narrowing. Barometer gains even with country.
27. PORTLAND, SEATTLE	193.9	+17.0	+5.5	Shipbuilding continues to boom; gains in employment, payrolls, and production remain high. Farm income increase about even with United States gain.
28. SAN FRANCISCO	164.4	+20.6	+8.3	Manpower shortages becoming more serious. Late crops aided by rains. Gain in retail activity over 1942 slightly less than country increase; wholesaling also up.
29. LOS ANGELES	162.5	+30.3	+7.1	Large yearly barometer gain. California farm income up 27%; Arizona up 36%. Industrial employment high; up about 20% in Los Angeles over a year ago.

In agricultural employment, the seasonal drop was more than usual during October, 2 per cent below the previous month and the comparable period last year. While total hired help decreased to the lowest point since the early 1930's, the number of family workers on farms continued higher than last year, according to the U. S. Bureau of Agricultural Economics.

Income—Along with the rise in the employment total in some lines, income payments to individuals hit a new high of \$12,545,000,000 in September. This was 7 per cent above the August total of \$11,677,000,000 and 20 per cent higher than the \$10,450,000,000 of September 1942. The month-to-month increase was partly seasonal, reflecting the Fall rise in farm income and dividend and interest disbursements. Income payments increased more moderately during the past few months of this year. Consumer expenditures for the third quarter of 1943 was at a record annual rate of \$91,200,000,000, reports the U. S. Bureau of Foreign and Domestic Commerce.

Retailing—With larger incomes and a limited supply of a variety of lines, "upgrading" of consumer demand is increasingly in evidence. Apparel lines continue to hold the leading position, with sales of some apparel shops increasing to levels almost double the volume of department stores in some sections of the country.

Christmas gift buying started appreciably earlier this year. A large variety of games and dolls are being high-

lighted to take the place of metal toys. Volume in housewares and furniture lines was off from last year by about 10 to 15 per cent. Monthly food volume continues high, running from 5 to 10 per cent above last year's all-time peak of the pre-rationing stock-up days. Sales of poultry and meats offset the slower buying of dry groceries.

Retailers' inventories have increased to meet earlier holiday buying this year. Yearly sales gains registered in the South, Southwest, and Pacific Coast regions continued substantially above the nation's average for another month.

Bank debits, which are a rough measure of retail trade volume, have continued to fluctuate during the past few weeks. The latest DUN'S REVIEW seasonally-adjusted index of the consumer buying on the opposite page gives a more optimistic picture of trade activity. The index for September increased again for the fourth successive month from 143.7 to 158.2 (1928-1932=100).

Wholesaling—Spring ordering and fill-ins of seasonal and gift merchandise kept the wholesale markets active. The heavy reordering indicated that the current high retail purchases of seasonal merchandise were continuing. Goods were still being sold on an allotment basis because of limited supplies.

Inventories of wholesalers remained almost unchanged with a slight increase over recent months; replacements were difficult due to irregular deliveries. Wholesale food volume slackened in some lines, especially where deliveries of canned goods had

been completed, or where supplies were short. Recently holiday buying strengthened wholesale volume.

Prices—Since May, when it was at its highest point, the wholesale commodity price index has moved gradually downward. Prices of foods and farm products have fluctuated, while the indexes of other commodities remained mostly unchanged. Decreases in the prices of hogs and poultry were chiefly responsible for the decline. Dairy, cereal products, and other meats rose slightly during October.

The increase in the retail prices of clothing, food, eggs, and miscellaneous items largely accounted for the rise in the cost of living index for large cities. The total index for the country was 124.4 on October 15, 1943; 5.6 per cent higher than October 1942, and 23.4 per cent above January 1941. Prices of some house furnishings advanced slightly. The cost of potatoes rose as well as that of meats and fish. Prices of some vegetables, such as cabbage, spinach, and onions, declined (U. S. Bureau of Labor Statistics).

The largest month-to-month increase in the cost of living in October was in San Francisco with 1 per cent; Boston and Philadelphia followed close behind. Birmingham, however, decreased 0.2 per cent, and Houston and Savannah were off 1 per cent. Both food and clothing costs contributed to the rise of living costs in San Francisco.

Food—The physical volume of agricultural products available for sale in 1943 is estimated to be close to that of 1942. About 25 per cent of this year's food went for military and lend-lease requirements, as against 14 per cent in 1942, according to the U. S. Bureau of Agricultural Economics.

Commercial vegetable output is expected to be exceeded only by last year's record. Stocks of frozen foods—with the possible exception of apples, pears, and poultry, which were above average—increased during October and were above last year and the 1938-1942 average. Crop yields per acre averaged higher than that of any season prior to the record 1942 levels and 24 per cent more than the average 1923-1932 level.

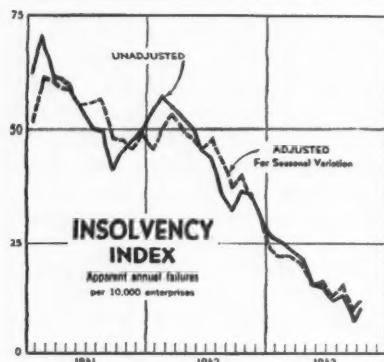
Finance—With wide fluctuation above and below a trend line, demand deposits in commercial banks in 1943 have followed the 1942 tendency to increase steadily. The figures of the



SIGNIFICANT INDICATORS

COMPILED BY THE PUBLISHERS OF "DUN'S REVIEW"

More detailed figures appear in DUN'S STATISTICAL REVIEW.



INSOLVENCY INDEX

	Oct.	Sept.	Oct.	Per Cent	Change
DUN'S INSOLVENCY INDEX*	1943	1943	1942		
Unadjusted	9.9	7.5	36.9	-73	
Adjusted, seasonally ..	10.6	8.9	39.7	-73	
NUMBER OF FAILURES	169	124	673	-75	
NUMBER BY SIZE OF DEBT					
Under \$5,000.....	74	60	359	-79	
\$5,000-\$25,000.....	69	49	257	-53	
\$25,000-\$100,000.....	20	12	49	-59	
\$100,000 and over.....	6	3	8	-25	
(Liabilities in thousands)					
CURRENT LIABILITIES.....	\$3,785	\$1,488	\$7,181	-47	
TOTAL LIABILITIES.....	\$4,030	\$1,538	\$7,881	-49	
*Apparent annual failures per 10,000 enterprises.					

FAILURES BY DIVISIONS OF INDUSTRY

(Current liabilities in thousands of dollars)	Number		Liabilities	
	Jan.-Oct.	1943	1942	1942
Mining, Manufacturing.....	508	1,321	17,009	27,380
Mining—Coal, Oil, Misc....	24	43	923	2,010
Food and Kindred Products...	72	253	2,400	6,268
Textile Products, Apparel...	79	255	2,201	4,136
Lumber, Lumber Products...	60	143	1,530	3,056
Paper, Printing, Publishing...	78	204	2,140	3,426
Chemicals, Allied Products...	26	56	400	1,022
Leather, Leather Products...	8	45	242	725
Stone, Clay, Glass Products...	19	38	301	829
Iron, Steel, and Products...	26	45	1,097	974
Machinery	45	64	4,106	1,248
Transportation Equipment...	10	25	705	678
Miscellaneous	61	192	874	3,028
WHOLESALE TRADE.....	230	671	2,711	10,407
Food and Farm Products...	87	258	1,007	3,783
Apparel	11	24	63	285
Dry Goods	7	24	59	368
Lumber, Bldg. Mats., Hdwr...	23	69	409	1,545
Chemicals and Drugs	6	27	44	531
Motor Vehicles, Equipment...	6	35	51	267
Miscellaneous	90	234	1,078	3,628
RETAIL TRADE.....	1,615	5,230	11,503	36,020
Food and Liquor.....	462	1,622	2,051	7,451
General Merchandise.....	61	223	305	1,870
Apparel and Accessories...	145	566	979	4,611
Furniture, Furnishings	83	323	637	2,690
Lumber, Bldg. Mats., Hdwr...	94	257	723	2,331
Automotive Group	103	434	847	3,514
Eating, Drinking Places	401	923	3,002	7,866
Drug Stores	112	410	718	2,864
Miscellaneous	154	472	1,341	2,814
CONSTRUCTION	353	638	5,002	8,326
General Bldg. Contractors...	128	211	3,132	4,603
Building Sub-contractors...	219	409	1,702	3,294
Other Contractors	6	18	168	429
COMMERCIAL SERVICE.....	215	454	4,657	6,435
Highway Transportation...	46	136	1,213	2,721
Misc. Public Services.....	8	12	1,164	577
Hotels	11	30	209	603
Cleaning, Dyeing, Repairs...	23	30	145	241
Laundries	55	61	1,452	999
Undertakers	14	26	128	161
Other Personal Services...	22	46	86	285
Business, Repair Service...	36	104	260	848

WHOLESALE FOOD PRICE INDEX

The index is the sum of the wholesale price per pound of 31 commodities in general use.

1943	1943	1943
Dec. 14. \$4.04	Dec. 15. \$4.00	High \$4.12 May 18
Dec. 7. 4.05	Dec. 8. 3.97	Low 4.03 Jan. 12
Nov. 30. 4.06	Dec. 1. 3.96	1942
Nov. 23. 4.04	Nov. 24. 3.95	High \$4.02 Dec. 22
Nov. 16. 4.03	Nov. 17. 3.94	Low 3.45 Jan. 6

DAILY WHOLESALE PRICE INDEX

The index is prepared from spot closing prices of 30 basic commodities. (1930-1932 = 100).

Week	Ending: Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Dec. 11.	170.22	170.36	170.17	170.19	170.71	
Dec. 4.	168.93	169.19	169.18	169.06	169.00	
Nov. 27.	169.74	169.70	169.68	169.49	169.26	
Nov. 20.	169.64	169.77	170.02	169.81	169.75	
1943	173.30	173.15	170.02	171.19	170.18	
1942	166.02	166.02	164.99	164.99	164.99	
1939	151.54	151.54	151.40	151.40	151.40	

BUILDING PERMIT VALUES—215 CITIES

Geographical Divisions:	October	%
New England.....	\$2,466,736	\$3,096,000
Middle Atlantic.....	4,589,393	6,039,398
South Atlantic.....	5,160,113	3,714,067
East Central.....	13,828,420	14,051,104
South Central.....	3,681,007	3,260,166
West Central.....	1,848,356	1,284,932
Mountain.....	958,858	552,301
Pacific.....	15,695,012	11,849,753

Total U. S.	\$48,227,085	+\$4,707,721
New York City.....	\$2,330,188	\$1,502,310
Outside N. Y. C.	\$45,997,797	\$43,205,411

*Apparent annual failures per 10,000 enterprises.

BANK CLEARINGS—INDIVIDUAL CITIES

(Thousands of dollars)

	October	%
Boston	1,423,830	1,548,271
Philadelphia	2,683,000	2,501,000
Buffalo	266,037	237,700
Pittsburgh	1,141,768	1,048,299
Cleveland	944,659	862,677
Cincinnati	435,993	437,384
Baltimore	627,766	624,591
Richmond	400,151	371,270
Atlanta	622,000	540,700
New Orleans	378,362	352,654
Chicago	2,007,636	1,873,118
Detroit	1,573,320	1,296,173
St. Louis	754,781	684,669
Louisville	292,970	281,251
Minneapolis	608,150	530,051
Kansas City	830,942	763,209
Omaha	327,750	263,361
Denver	266,758	235,728
Dallas	480,178	454,363
Houston	415,761	371,729
San Francisco	1,181,108	1,062,837
Portland, Ore.	342,724	336,550
Seattle	372,277	387,938
Total 23 Cities.....	18,454,121	17,074,052
New York	20,911,466	17,357,060
Total 24 Cities.....	39,365,587	34,432,012
Daily Average.....	1,574,623	1,324,308

FURTHER INFORMATION

Due to war-time restriction on use of paper and the desire to conserve as much space as possible, the features appearing on this page are necessarily given in very abbreviated form. More detailed data on the various subjects are published each month in DUN'S STATISTICAL REVIEW. For example, building permit values for each of the 215 cities are given, with a breakdown by geographical regions. Failure statistics are available by States, by large cities, and by Federal Reserve Districts; also by industrial groups and by size of liabilities. Canadian failure statistics by provinces are included. With the bank clearing data there is also comparative data for the three preceding years, for the preceding month and cumulative data for the year to date.

The wholesale price indexes are presented for a much longer period of time. There is also a summarized presentation of other wholesale price index numbers, both United States and foreign. . . . The annual subscription to DUN'S STATISTICAL REVIEW is \$1 a year.

weekly reporting member banks in 101 centers for the last of November were in the \$33 billion range, well under the all-time September peak of \$36 billion and about 10 per cent above the preceding year. U. S. Government deposits are around the \$10 billion level; these fluctuate widely, a year ago they had just started a steep climb from the two and three billion level.

On the banks' asset side holdings of U. S. Government obligations continue to climb and—for weekly reporting member banks—at the \$37 billion level are about 50 per cent above a year ago. Total loans for the same banks at \$11 billion are some 12 per cent above a year ago; the increase is in the "Loans to brokers and security dealers" component with commercial, industrial, and agricultural loans; real estate loans; and other loans showing little change of significance over the totals of a year ago. The commercial, industrial, and agricultural component has climbed since June and at \$6.4 billion is some 15 per cent above that low reached after a fifteen-month decline.

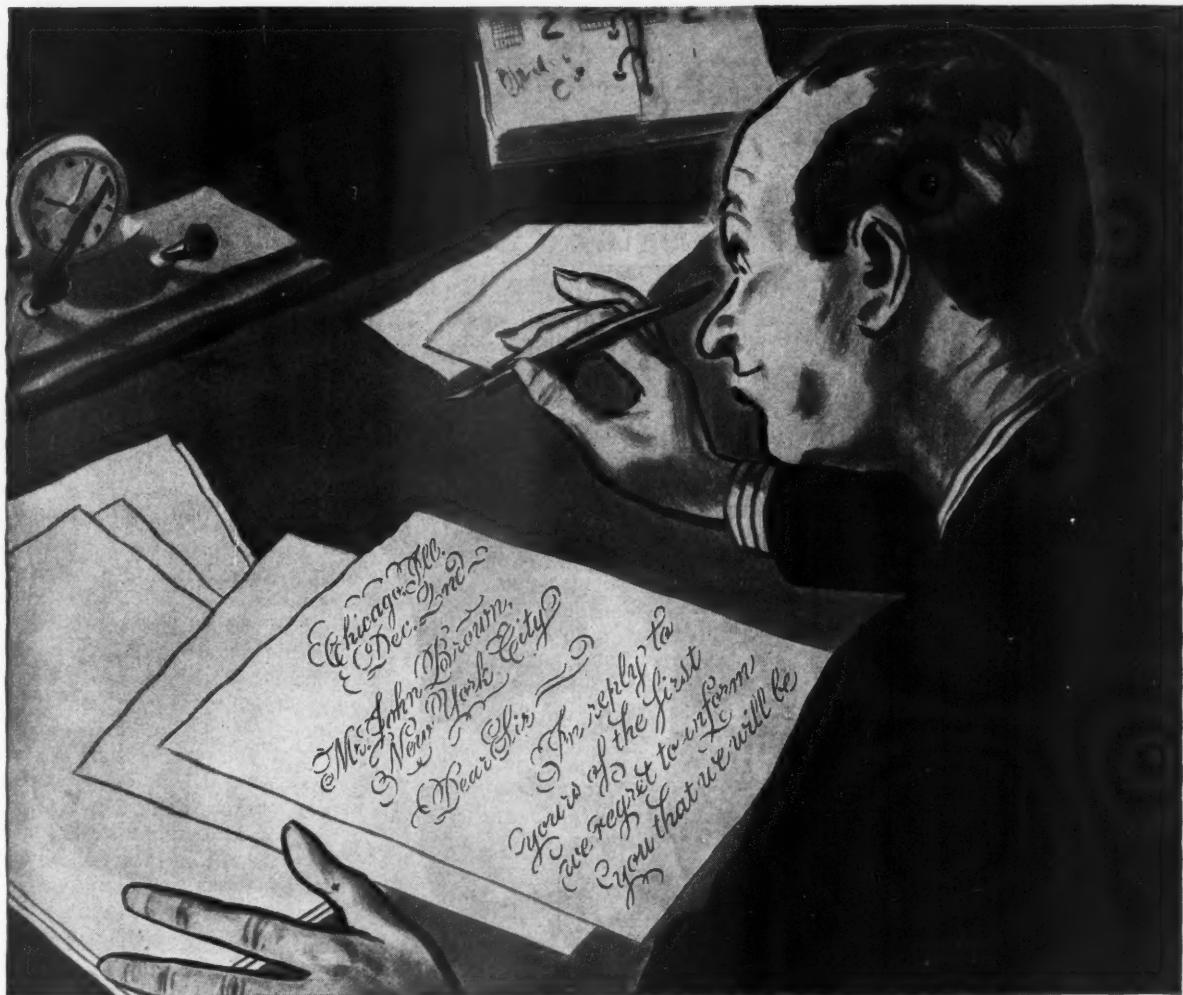
Total consumer credit is down a fourth from a year ago with little change in the last few months.

Prices in the security markets, following the usual seasonal pattern, registered a considerable drop in November as the trend of prices became affected by year-end adjustments. Some important stocks reached new lows. In early December stocks rallied, with the rise offsetting the decline registered in the previous month.

Failures—Business failures responded in October to the usual seasonal upward pull toward the end of the year, and even on a seasonally-adjusted basis showed considerable increase. The insolvency index rose 1.7 points, or 19 per cent, over September, but was 73 per cent under its October 1942 level.

Failures were up from September in all industry groups. The rise in manufacturing and in both wholesale and retail trade approximated 25 per cent, but in construction and service lines was much sharper. The increase in retail trade failures extended through all important lines except food and general merchandise.

Geographically, failures were off in the Chicago and Kansas City areas; unchanged and very few in the Southern districts; with the increases confined to the Atlantic and Pacific seaboard and the Cleveland-St. Louis districts.



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"He writes a beautiful hand" was high praise for an office employee of the '90s.

But there's no big market today for those elegant flourishes, those delicately shaded lines. They take too long to do.

Modern business demands speed in all its operations. Often, such speed can only be achieved through swift, repetitive action—processes that are performed over and over again, quickly and accurately. That's especially true of business records—orders, invoices, shipping forms and the like.

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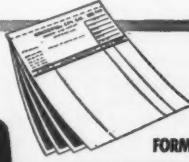
speed plant and office routine with better record forms—both autographic register and typewritten. Designed for every department of business and industry, these record forms help to simplify the most complicated operations . . . achieving savings of time and effort which often appear incredible.

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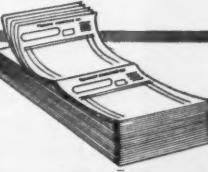
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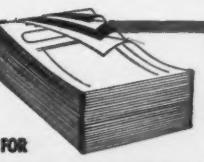
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HERE and THERE in BUSINESS

WHAT'S NEW AS OBSERVED BY THE AGENCY'S REPORTERS

Largest Synthetic Rubber Plant—

Rubber now is being produced by the world's largest synthetic rubber plant, with capacity for manufacturing 120,000 tons of man-made rubber annually. This was built at Port Neches, Tex., by the B. F. Goodrich Company.

The plant, capable of turning out a fifth of the nation's normal rubber requirements, is the largest to be constructed in the Government's synthetic rubber program. Goodrich will operate two of the 30,000-ton units.

Butadiene comes by pipeline to this plant from the new plant of the Nechoes Butane Products Company nearby. The styrene for Texas Rubber will be produced by plants operated by the Monsanto Chemical Company at Texas City and by the Dow Chemical Corporation at Velasco.

A Government plant at Borger, Tex., with a capacity of 45,000 tons, was built by Goodrich and began producing rubber early in August.

Training a Good Foreman—A foremanship training article, prepared by Al J. Conn of the La Salle Designing Company, 628-630 West Lake Street, Chicago, has been requested for use by dozens of concerns, large and small, because of its general applicability.

Mr. Conn, management and engineering consultant, was called in to straighten out a difficulty arising in a certain company, threatened with Government management as the result of non-performance on a contract. On one of his trips to the plant he noticed that it was impossible to tell who the foreman was in any department as foremen had been made hastily without any previous training. Such supervisors in trying to "get in good" with their men had brought about a laxity in management and poor control from a personnel point of view.

Accordingly, Mr. Conn prepared an article on the fundamentals of management, copies of which he will furnish to any company. This article is in part as follows:

"The foreman has a very definite responsibility in the way of stewardship over an immense investment. The average foreman in this company has 15 men and for each employee this

company has invested an average of \$8,000 per man so if you are the supervisor for 15 men you have the stewardship of \$120,000 of the company's funds. This is no small item.

"You have been chosen because it has been felt by this company that you are a leader, and, as a leader, you are given absolute charge of these men and you, to them, do represent the company, and the way that you treat or mistreat these men, will fix in their minds their opinion of this company.

"Remember that each of these has a family—a family who looks to them as the only source, economically speaking, of their getting ahead in this world. Each man comes to work usually with the hope that he will gain favor in your sight, and your ability is required to sell him the ideals of this company, to sell him on the thought that for his family's success and happiness he must produce, must be careful, and must obtain a reasonable output each day. Beyond that he must be made to feel that this company does have a personal interest in him and his welfare.

Just in case this is your first call at the Lycoming Division, we have prepared the following information to aid you:

Our correct name is

**LYCOMING
DIVISION - THE AVIATION CORPORATION**

Our mailing address is

WILLIAMSPORT, PENNA.

We manufacture precision aircraft engines and component parts for the Armed forces of the United Nations. We have received the Army-Navy "E" Pennant for efficiency in this work.

We thank the salesmen who visit us for the new ideas and information you have brought to us. We, too, have representatives bringing Lycoming experience and ideas to the industry and we extend the same courtesies that we hope our representatives receive during their calls.

No matter how busy we are, we are always glad to see you. We will interview you as promptly and as courteously as possible with consideration for the value of your time and ours. We shall be pleased to cooperate with you in carrying out your business promptly.

We may know what your concerns has to offer us but we are always glad to be kept up-to-date on all of your products and help us give you an opportunity to serve us.

We welcome your suggestions to help lower your costs.

A few of the men of Lycoming in various Departments whom you may wish to see are listed here:

Vice President in Charge of Operations	P. E. GARLANT
President and Vice President	MILTON JEFFERSON
Plant Manager	E. J. HANSON
Works Manager	H. J. GIBBON
Plant Superintendent	H. F. MARLETT
Assistant Treasurer	R. M. MARER
General Sales Manager, The Aviation Corporation	W. K. COOPER
Sales Manager	C. O. SAMUELSON
Purchasing Agent	W. J. STARR
Assistant Purchasing Agent	G. W. SHIRLEY
Personnel Director	J. J. McBRIDE
Production Manager	J. C. HART

Each visitor receives at the reception desk of the Lycoming Division, Aviation Corporation, Williamsport, Pa., a folder which helps him know more about the company operations and the people he is likely to be calling on. The outside reads "Greetings Mr. (caller's name is written in) we're happy to have you visit us today and hope you enjoy your stay."



"I'm staking my claim in New York City"

When it comes to planning for the future, New Yorkers seem to have an edge. Just the size of the city guarantees stability. The variety of its industries makes for continued prosperity. Its population is a vast store of labor. Its area offers plenty of room for expansion.

But above all, New Yorkers have the advantage that comes from mutual cooperation. They have discovered the interdependence of local industries. Businessmen have learned to work together, to create new markets for waning industries, to solve the problems of individuals before they affect whole groups.

3622 new industrial establishments started up in this city last year! And business is better this year than last! We urge you to consider the advantage of moving to New York and sharing in our growth. For The New York Times believes firmly in the future of New York City. It expects to be active in making it a great future. Let us put you in touch with men who, with full cooperation of City Departments and of a unique group of leading businessmen, can tell you what this city has to offer to you, your business and your employees. Simply write to the Publisher, 235 West 43rd Street.

That's what one business man* writes us!

"For the development of a manufacturing business, New York City is the best possible location. We therefore 'staked our claim' here. We were greatly aided in finding suitable space and in other ways by the City Administration. An adequate supply of intelligent and capable labor including a heavy proportion of female help was available. Sources of supply for tools and materials of a wide variety can be had with little effort because so many manufacturers' agents are stationed here. Banking support has been most helpful and cooperative. Since our growth after conversion to war work has been extremely rapid, it is obvious that the varied resources of New York City have played a valuable part in aiding our development."

*Name on request

The New York Times

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5. To purchase modern equipment—single units or complete plants.
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CAPITAL AND SURPLUS MORE THAN \$68,000,000

"One foreman by the example that he himself set by being early and ready to go when the whistle blew, saw to it that each of his men started with the whistle, and that they worked at gainful employment until quitting time. While in another department the foreman was lax and never showed up until 10 minutes late and always left his department ahead of time, exercising every privilege that he could take because of his standing with the firm, and consequently his men, by his example, followed suit—with the net result, that 15 men were about eight minutes late starting work although they were there on time. You multiply this by two starts per day and you add the fact that they were seven minutes early getting stopped twice a day, with the net result that there was a loss of 7½ hours per day for 15 men."

Plastics Ammunition—A machine gun, created recently by the Edison General Electric Appliance Company, uses plastics bullets discharged by compressed air instead of "live" ammunition to train soldiers at less cost.

The device, operated by electricity and built to the actual size and appearance of the 50-caliber Browning machine gun, will fire 600 rounds of the plastics pellets per minute—the same rate as the Browning. However, the pellets, which can be used over and over, cost but a cent apiece as compared to the 30-cent cost of each Browning bullet. The trainee is accustomed to the distraction of actual muzzle blast by amplified "explosions" of compressed-air.

Industrial Salvage Manual—A "Salvage Manual for Industry," containing 245 pages of systematically organized and classified information on industrial salvage practice in all of its branches, has been published by the War Production Board and distributed to industry. This was prepared by the Technical Service Section, Industrial Salvage Branch, Salvage Division.

The material, which is largely of a "how to do it" nature, is contained in 26 chapters which are grouped into six major sections. Two of the chapters are on organizing and planning the salvage department; three on administrative factors; twelve on methods of handling metal scrap (such as finding, identifying, segregating, collecting, reclaiming, storing, and selling); and three on non-metallic waste.

Also presented are seven case histories demonstrating exemplary prac-



(Illustration courtesy International Telephone and Telegraph Corporation)

Veteran Underwoods Help Speed the Telephones of War

Aided by Underwood office machines, International Telephone and Telegraph Corporation and its associate companies are helping to *fight* the war.

Day after day, they produce field telephones and radio equipment for our Armed Forces and globe-circling communications services.

Built and bought for the business of peace, I. T. & T's sturdy Underwood Typewriters, Accounting, Payroll, Adding

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SOLUTION—

Acoustic wall booth absorbs train noise

Public telephones are often difficult to use even in reasonably quiet locations, but with street traffic rolling overhead and subway trains running below, it was a real problem to provide satisfactory telephone service in the new Chicago subway.

The problem was solved by making all telephone booths of patented Burgess acoustic construction. The booth walls consist of thin, perforated panels covering thick blankets of sound-absorbing material. Sounds entering the booth strike the wall and pass through tiny perforations to be soaked up by the sound-absorbent. With this type of acoustic design, privacy is obtained without the use of doors and the other party can be heard without the least difficulty. Since the partitions extend only halfway to the floor, the booths are well ventilated and easy to keep clean.

BURGESS PIONEERING in acoustic development has produced many other quieting devices. Over 20 years' experience has made it possible for the Acoustic Division to successfully design products ranging from exhaust silencers to acoustic ceilings for restaurants. Why not write us of your noise difficulties? Acoustic Division engineers already may have worked out the solution to your problem.

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Acoustic
DIVISION

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tice; a 17-page compilation of practical hints for handling specific waste materials; and a nine-page index.

A board of practical industrial salvage engineers and business paper editors prepared and edited the manual. Editors were Robinson D. Bullard, Bullard Company, and Fred P. Peters, *Metals and Alloys*.

Need Cast Iron Borings—Critically needed for the manufacture of explosives, dyes, and chemicals to aid in preserving rubber are millions of pounds of the small slivers left after cast iron is drilled or machined.

More than 100,000,000 pounds of these shavings, called chemical borings, are required annually for the plants and the ordnance works which E. I. duPont de Nemours & Company operates for the Government.

The borings function as a so-called reducing agent in producing aniline for dyes. Aniline, in turn, enters into the manufacture of dimethylaniline, employed in making tetryl, a booster for high explosives and diphenylamine, a stabilizer for smokeless powder and a required chemical in preserving natural and synthetic rubber.

Greatly needed in carload lots are soft, oil-free borings, such as are left from the machining of cast iron piston rings, shock absorber housings, transmission housings, pulleys, and textile machinery. Ninety thousand pounds of borings are carried in an average box car.

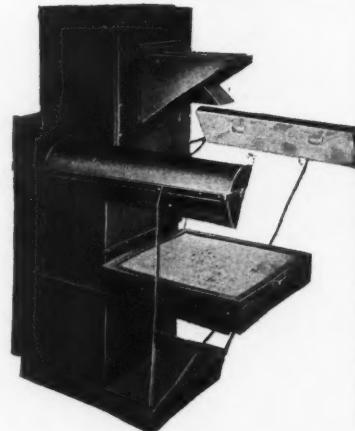
Du Pont urges plants machining cast iron to sell their borings rather than remelting or shipping to blast furnaces. While hard borings also are used, the shortage is in the soft, oil-free ones.

Problems of Far East—An important factor in bringing to American business men a closer understanding of world needs and affairs is that of the agencies raising relief funds for America's allies. United China Relief stands out in this respect.

The chairman of its board of directors is Paul G. Hoffman, president of Studebaker Corporation, and for some months W. R. Herod, vice-president of International General Electric, was loaned full time as president. Some thirty of the leading men from the sales staffs of American industry also were provided to put across the 1942 campaign. While selling aid to China they learned much about the problems of the Far East.

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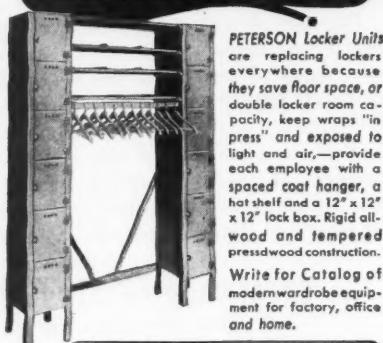


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China Relief has organized committees co-operating with the National War Fund.

Paralleling this emphasis at home, United China Relief has a decided interest in economics abroad. While the larger portion of its funds now is going to child welfare, relief from the disasters of war and pestilence, and to medical activities, United China Relief also is considering the field of economics and industry as a way of making relief less necessary. One of its leading committees in China is that of Economic Rehabilitation, headed by Dr. Lossing Buck, professor of Agricultural Economics in Nanking University.

The organization is particularly interested in the production of consumer goods in China to cope with the scarcities arising from the cutting off of Free China from the principal port cities and the isolation of that country from the rest of the world.

Improved Bonding Process—The United States Stoneware Company, Akron, Ohio, announces a new bonding process which will unite metals with a bond stronger than riveting or spot welding, and will join rubber, synthetic rubber, plastics, leather or wood, to metal, or to each other with a bond stronger than the materials themselves. The firm produces Tygon plastic materials and corrosion-resistant industrial equipment.

The new method, known as the "Reanite Bonding Process," is already in use for war applications and is expected to find numerous peace-time uses. Company engineers say that thin sheets of stainless steel or aluminum can be bonded to Tygon impregnated plywood to form lightweight, fireproof, waterproof structural assemblies for pre-fabricated housing units, boats, airplane or motor car assemblies, kitchen cabinets, refrigerators, furniture, etc. Composite metal and plastic parts may be molded.

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In application of the process, the surfaces to be joined are brushed, sprayed, or dipped with Reanite. After drying, mild heat and pressure are applied. Present uses include fabrication of air-



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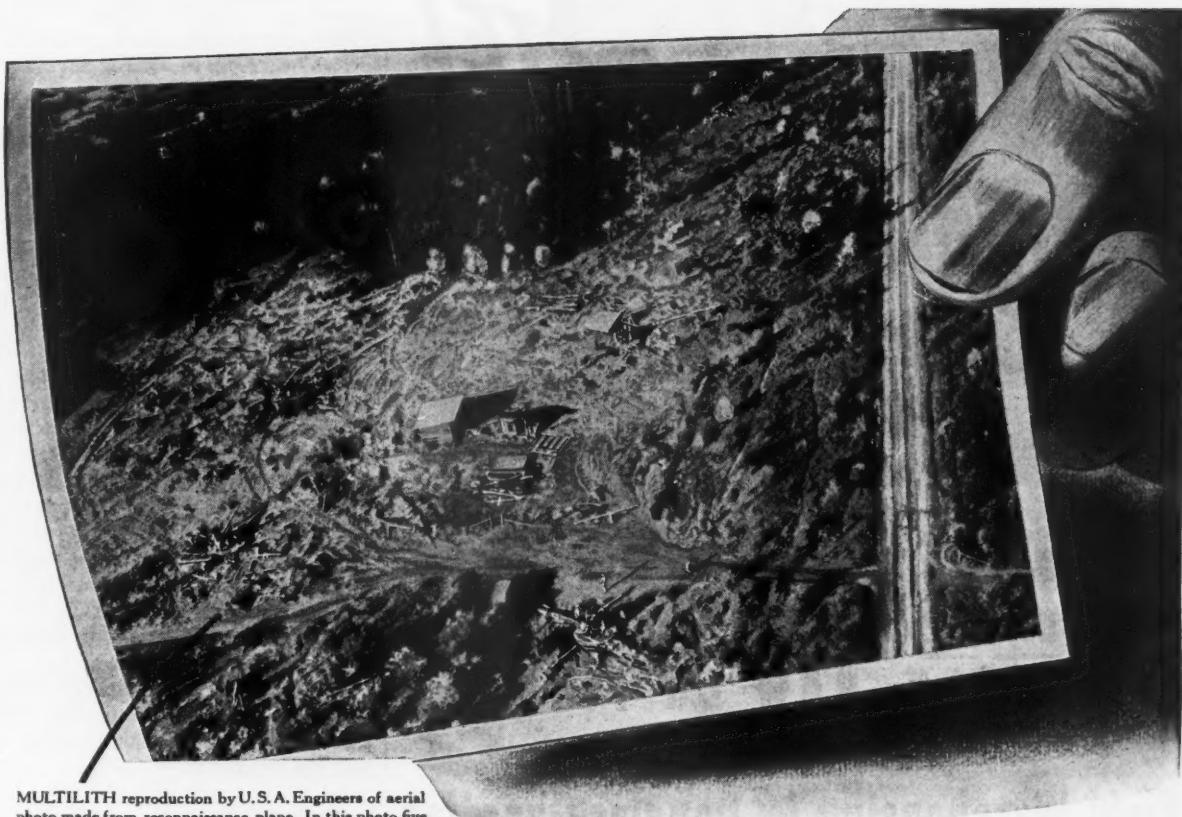
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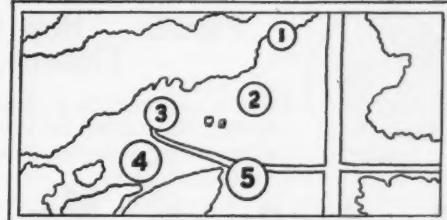
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Thirty Thousand Ampere Switch

—A considerable number of 30,000 ampere switches, said to be the first of their capacity ever built, recently were completed for a chemical plant by the Electrical Engineers Equipment Company, Melrose Park, Ill. The switch is used in the electrical connections to a battery of electrolytic cells producing chemicals.

When it is necessary to take one of these cells out of service for inspection and repairs, the switch, which is mounted on a portable rig, is moved into position and closed. This closing establishes an electric circuit which forms a by-pass around the circuit through the cell. It is then safe to take this particular cell out of service without disturbing other cells of the battery, which continue in production.

The switch carries about three times as much current as generally has been used heretofore. It contains about a half ton of copper.

Rings Made of Non-critical Materials—Rubber technicians of the B. F. Goodrich Company, Akron, Ohio, have developed jar-sealing rings of non-critical materials that are enabling commercial food packers to conserve large quantities of foodstuffs which might otherwise be wasted.

One type of ring, used for low heat packs, is made of Koroseal, a thermoplastic fabricated of coke, limestone, and salt, which was originated by B. F. Goodrich chemists. The other is a vulcanizable linseed oil compound combined with various secret ingredients. Both are being used by leading food processors and already have proved satisfactory seals for hundreds of thousands of cases of food products, Dr. Howard E. Fritz, Goodrich director of research, said.

The sealing rings were developed, he explained, when the canning industry, seeking a replacement for tin cans when limitations on their manufacture became drastic, devised a special glass jar with a patented glass lid and then found that an air-tight seal could not be obtained by glass-to-glass contact.

Use of the new sealing rings has been confined to packing products which do not rate rubber rings, but whose processors are able to obtain a fairly high priority rating for use of materials substituting for rubber. They will not be



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—The perils of swampy terrain have been minimized for the Army's jungle troops who now advance equipped with "water wings." The latter are fabricated from cotton and Safflex, a rubber-like plastic developed by Monsanto Chemical Company, Springfield, Mass.

Each soldier carries folded in his pack two separate envelopes about the size of a squared football bladder. When he reaches a jungle stream or a swampy area where a misstep may plunge him into water over his head, he inflates the envelopes and tucks them under his armpits, keeping them in place by buttoning his blouse. These also may be used to carry extra water or they may be inflated to serve as a pillow.

The envelopes, which are officially termed flotation bladders, are produced by combining squares of cotton fabric with Safflex, then heat-sealing two of the squares with the fabric side out. A short piece of rubber tubing serves as the inflation valve.

A member of the vinyl acetal family, Safflex originally was developed by Monsanto for use as a plastic filler in high-test safety glass. As rubber became scarce, the chemical structure of Safflex literally was rearranged to produce a rubber-like plastic and is replacing rubber in many military items.

Produce 2,200 H.P. Motor — The new Wright Cyclone 18 of the 2,200 horsepower type developed by Wright Aeronautical Corporation of Paterson, N. J., now is in quantity production for use in heavy, long range bombers, fighters, and transport.

It has the highest horsepower figure which the War Department ever has permitted to be published on an American engine. Its 18 cylinders are built in two banks, of nine cylinders each, with a displacement of 3,300 cubic inches. Despite its great power, the new engine has a diameter of only 55 inches, the same as that of the original nine cylinder Cyclone which was introduced in 1927 with a rating of only 525 horsepower.

Read on the Run — Under a merit rating system foremen and supervisors rate Fairchild Aircraft employees for raises, promotions, transfers or releases. Recently employees were invited to "rate" their foremen on specially prepared cards and were getting a big kick



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How "Honesty Engineering" helps prevent Loss of Personnel

NOT long ago a mid-west mercantile concern was suffering heavy manpower losses because of employee dishonesty. In one year alone, some scores of persons misappropriated company funds and were dismissed. Then U.S.F.&G.'s unique Personnel-Protection Plan was put into effect. Result: manpower losses due to dishonesty dropped 83% . . . another example of how "Honesty Engineering" helps stop employee dishonesty before it can start!

Today, employee dishonesty is a threat to employers great and small. For while fidelity insurance can repay your financial losses due to dishonesty, it cannot make good the loss of trained, hard-to-replace manpower.

It was to meet this problem that U.S.F.&G. developed its unusual Personnel-Protection Plan. The plan of "Honesty Engineering"

helps reduce employee dishonesty in much the same way that safety engineering and fire prevention work have reduced accidents and cut fire losses for American business.

Based on long experience in bonding employees, the Personnel-Protection Plan not only insures you against loss through employee dishonesty but: (1) discloses undesirable personnel and prevents waste in training; (2) through tested methods helps keep good employees from going wrong; (3) helps employers eliminate leaks, pitfalls and careless acts which often lead to employee dishonesty.

Your U.S.F.&G. agent will be glad to give you more information about how the Personnel-Protection Plan helps you keep your employees by keeping them honest. Consult him today.

Branch Offices in 43 Cities · Agents Everywhere

U. S. F. & G.
UNITED STATES FIDELITY & GUARANTY CO.
affiliate:
FIDELITY & GUARANTY FIRE CORPORATION
HOME OFFICES:  BALTIMORE, MD.

Consult your insurance agent or broker as you would your doctor or lawyer

93 YEARS OF PEACE AND WAR AND GROWTH

THERE wasn't much of the present U. S. A. mapped in geographies on November 20, 1850, when the first train steamed forth on what today is part of The Milwaukee Road.

The little five-mile line of 1850 is now an 11,000-mile transcontinental railroad linking the industrial cities of the east and middle west to the World ports of the Pacific Northwest.

Through wars and rumors of wars, depressions and years of great development

and prosperity, The Milwaukee Road has written its share of American history.

Today all that our free America means is being challenged. And we of The Milwaukee Road, in concert with the rest of the nation, are helping to fling back that challenge.

Our friends and patrons—both passengers and shippers—are co-operating to the limit. They, as well as we, know the urgency of the situation and the importance of the job we all have to do.



Just a Simple
TWIST
of the Wrist -

There's no waste motion. Seated comfortably, she picks the card from the wheel—finds or posts her information . . . then quickly snaps the card back on again. With Cardineer, one girl often does the work of two. Actually saves 40% in manpower and time. Compact, portable, holding 6,000 cards in seven removable sections, Cardineer eliminates drudgery in filing, finding and posting. Easily adaptable to your present records. Ready for immediate delivery. Used in hundreds of plants where maximum efficiency is the prime requisite. Order now.

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Producers of Methods Equipment and Office Accessories



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ROTARY FILES

out of doing it. . . . Two-thirds of all America's electric power is produced by steam turbines and two-thirds of these turbines have been built by General Electric, according to a booklet "The Story of Steam," recently released by this firm. . . . A "rivet robot" which eliminates one of the chief causes of faulty airplane construction—uneven riveting—and enables unskilled workers to increase their production, has been developed by Willys-Overland Motors. . . . During 1942 one-third more iron was produced by the 230 blast furnaces operating in the United States than by the 351 in production during the World War I year of 1918. Credit for the increased efficiency of the present-day furnaces is given to improved methods of charging materials, airblowing, blast heating, gas cleaning, and to better iron and slag handling systems which have made it possible to operate larger furnaces. . . . Unrolling camouflage net cloth in 50-foot lengths is done in Cleveland by girls on roller skates who skate about 9½ miles a day. . . . A wall chart of paint spraying rules, applicable to all types of spray equipment, has been published by Eclipse Air Brush Company, 400 Park Avenue, Newark, N. J., and will be sent free to anyone requesting it. This shows how to save paint, air, time, power, fuel, and equipment, reduce lost time because of sickness or accident, and improve results.

DUN'S REVIEW

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ASSOCIATE EDITORS: Walter Mitchell, Jr., and A. M. Sullivan (*Contributing*); Howard Barnard; J. A. D'Andrea (*Statistician*); L. Richon, M. Fisher, and C. A. Reuse (*Business Conditions Staff*); D. S. Davis (*Failures*); Clarence Switzer (*Art Director*).

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BUSINESS BIRTHS AND DEATHS

(Continued from page 18)

and liquors; and hardware, plumbing, and heating supplies.

Every one of the groups of retail lines included in these tabulations showed a loss of population in the Summer of 1943. The decline was sharpest among retailers of radios and electrical and gas household appliances. General merchandise stores and general stores (a majority of which are probably quite small) suffered almost as much, followed by filling stations and motor vehicle dealers.

In all of these groups of lines except general stores, however, the rate of decline in the Summer of 1943 was substantially smaller than in the corresponding period of 1942. On the other hand, there was a marked acceleration in the rate of population decline in fields which previously had not been seriously affected, such as cigar stores, gift shops, and the numerically important food retailers.

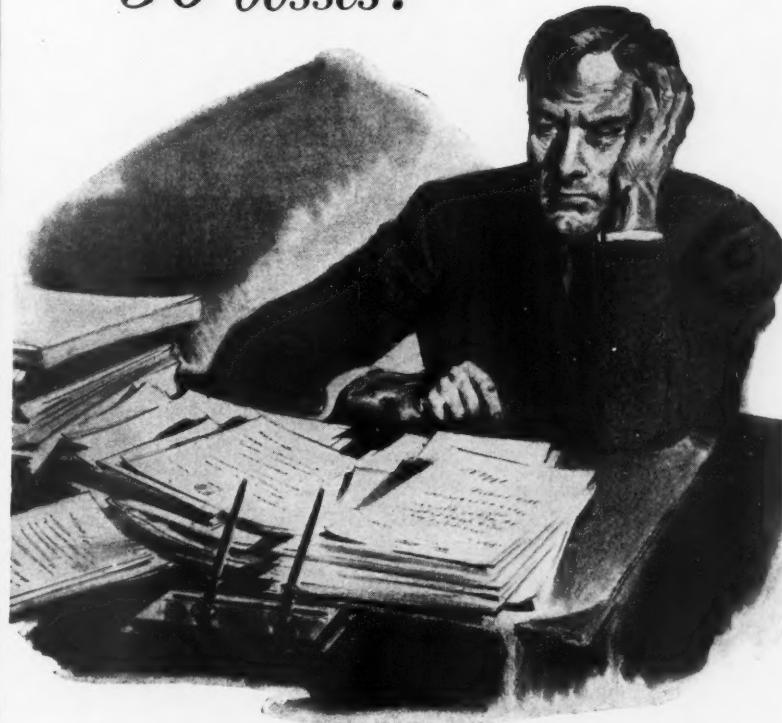
Nearly as interesting as the changes in populations of specific trades and industries are the regional changes in business populations shown in the table at the top of the next page. These cover a full twelve months instead of the two months' period covered by the September Reference Book. Consequently the percentages of net change run much higher. The declines are also almost three times as large as in the previous twelve months, but the variations between sections are less marked.

EARLIER ANALYSES

Articles by Willard L. Thorp, Walter Mitchell, Jr., William A. Rothman, Dorothy Davis, and William Hayes of the Research and Statistical Department of DUN & BRADSTREET, INC., appearing in earlier numbers of DUN'S REVIEW, have contained various analyses of the business population count and of business births and deaths. These articles, which extend back to 1937, range from a consideration of business failures and business activity since 1887, a 50-year-study, to casualties on the business front during the first World War. Most of the issues containing these studies still are available.

The Reference Book Department, through the branch offices of the company, gathers the original data.

The business that has 50 bosses!



Feel sorry for the office manager of a fire insurance company—reporting to 48 states, the Federal government, and its own management...with dozens of routine reports every month, 24 separate annual reports every year end...special reports for underwriters, for salesmen, by states, by agencies and classes of business...reports on 780 classifications for rating purposes, on unearned premiums, on reserves and losses—and other particulars too numerous to mention!

Two years ago, this company called in McBee. After a comprehensive study, McBee representatives set up simplified and streamlined routines

that speeded up information, saved time, effort, expense. One Waxspot form took care of 25 items formerly carried on several forms. Keysort record cards now carry original records, are used regularly for infinite statistical classifications. And today:

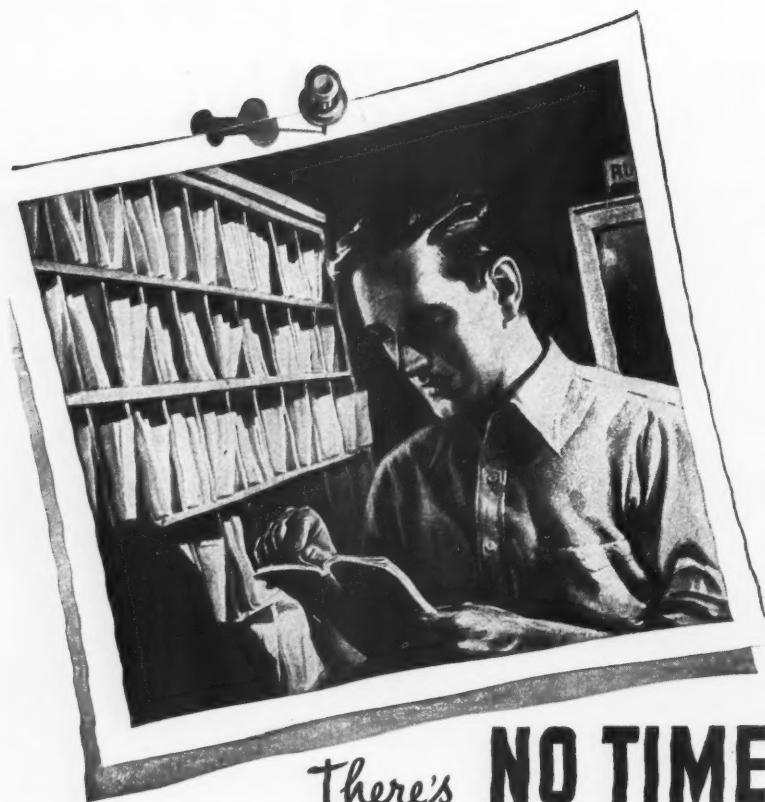
With all the men employees gone, many experienced girls doing what work, the office staff is all-girl, and smaller than before. New girls average a week in learning their new jobs. Reports are issued earlier, with less effort. Year end jobs that used to take four months are washed up in two. Some \$15,000 is saved...And the office manager even has time to show visitors his system!



THE McBEE COMPANY

295 Madison Avenue, New York City 17, New York

General Offices—Athens, Ohio . . . Offices in principal cities



There's **NO TIME** to do it by the book !

The armed forces have taken from the postal services some 35,000 men, whose special skills and local knowledge can't be replaced right away. It takes two to five years to make an expert sorter who can assign any address to its proper delivery district. Substitute sorters have to set aside addresses they don't know, look them up later—a delay that may cost a letter a day!

To keep deliveries normal, the Post Office wants you—now!—to include in the address of a letter or package the Postal Unit Delivery number, in the 124 cities where the numbers have been assigned.

With the Unit number part of the address, the sorter can send the letter out for the next delivery. This number system is not only essential to maintain postal service at this time, but will improve postal efficiency in all large cities.

Have you changed your address books, mailing lists and stencils . . . to include the new Unit numbers? If you haven't, will you make the change right away? Not just to help the post office, but to get prompt delivery of your own mail, prevent bottlenecks in your own business!

PITNEY-BOWES POSTAGE METER CO.
1562 PACIFIC STREET, STAMFORD, CONN.



Originators of Metered Mail . . . largest manufacturer of Postage Meters in the world . . . Now devoted exclusively to war production.



CHANGES IN REGIONAL BUSINESS POPULATIONS

AS INDICATED BY THE NUMBER
OF NAMES LISTED IN DUN &
BRADSTREET REFERENCE BOOKS



D. & B. REGIONS	PER CENT CHANGE After July-August Reports		
	1941 vs. 1940	1942 vs. 1941	1943 vs. 1942
1. Boston . . .	+2.0	-1.9	-6.4
2. New York . . .	- .9	- .3	-6.7
3. Philadelphia . . .	+ .3	-2.4	-5.8
4. Cleveland . . .	- .6	-1.6	-5.5
5. Richmond . . .	+2.2	- .4	-3.0
6. Atlanta . . .	+2.5	-3.6	-3.6
7. Chicago . . .	+ .2	-1.3	-4.6
8. St. Louis . . .	+1.5	-4.5	-6.0
9. Minneapolis . . .	-2.8	- .8	-5.0
10. Kansas City . . .	-3.8	-3.9	-9.7
11. Dallas . . .	+1.5	-4.2 ¹	-9.3
12. San Francisco . . .	+2.5	-2.0	-7.3
United States . . .	+ .3	-1.9	-6.2

¹ Revised.

These dates represent by comparison of corresponding months in three succeeding years regional shifts of business population approximately, from about the beginning of the American war effort to our entry into the war, and in each of the two years since our entry.

The decline was smallest in the Richmond region which includes Washington, D. C., and its environs and which had a relatively small loss last year also. It was largest in the Kansas City region, which had a substantial drop in 1942. In general, the decline in business population seems to have been larger west of the Mississippi River and on the Pacific Coast than in the Eastern States.

The changes which have taken place in the business population of the United States during the present war have been widespread and substantial. They have, however, been so varied in their nature, incidence, and extent that it is difficult to discern any pattern clear enough to serve as a basis for forecasting future trends in any detail. The business population seems to resemble the human population in many respects, notably in that changes are almost unpredictable.

Christmas Gift... to America



"LIFE FOR THE WOUNDED" BY JES SCHLAIKER, COURTESY OF REICHEL LABORATORIES, INC.

You've read of the practical value of blood plasma. You've heard physicians hail it as the greatest advance in medicine since anesthesia. You've heard how it prevents shock, the greatest single cause of death from wounds. You can imagine for yourself how desperately it is needed. There is no better time than now, in this Christmas Season to make the greatest gift we mere civilians have ever been privileged to present. When your very own life blood goes to war it does more than bring Victory nearer, it helps to bring back to us more of our bravest and best . . . This advertisement is dedicated to our fighting forces by the York Corporation, whose refrigeration equipment is helping to speed the processing of blood plasma.



There are 33
American Red Cross Blood
Donor Centers in the U.S. If
there is one near you, telephone
for an appointment today.

THE POWER BEHIND THE BATTLE LINE...

that puts the weapons of victory
in the hands of fighting men
around the world



Bombers, tanks, shells, bazookas—all the thousand and one items of supply vital to the war—pour out of America's factories in tremendous quantities . . . Ships go down the ways at a rate the world had not even dreamed of . . .

And to back the great attacks now beginning, America's war production must rise to still greater heights this year.

The entire TODD COMBUSTION EQUIPMENT organization is proud to be playing its part in this mighty effort.

For 30 years TODD burners have won for themselves a unique reputation for continuous and efficient production

of power and heat, both on land and sea. Since Pearl Harbor, TODD has met, and is now constantly meeting, the enormous demands for efficient combustion equipment for new and converted war plants, and the rapidly growing Navy and Merchant Marine!

All TODD burners today are on high priority. But when victory is won, the company will again serve the many organizations who today cannot obtain combustion equipment—commercial buildings, plants manufacturing civilian goods, churches and schools.

New research development, born of the war, will enable TODD to provide still greater efficiency and economy in boiler plant operation on both land and sea.

TODD SHIPYARDS CORPORATION TODD COMBUSTION DIVISION

601 West 26th Street, New York 1, N.Y.

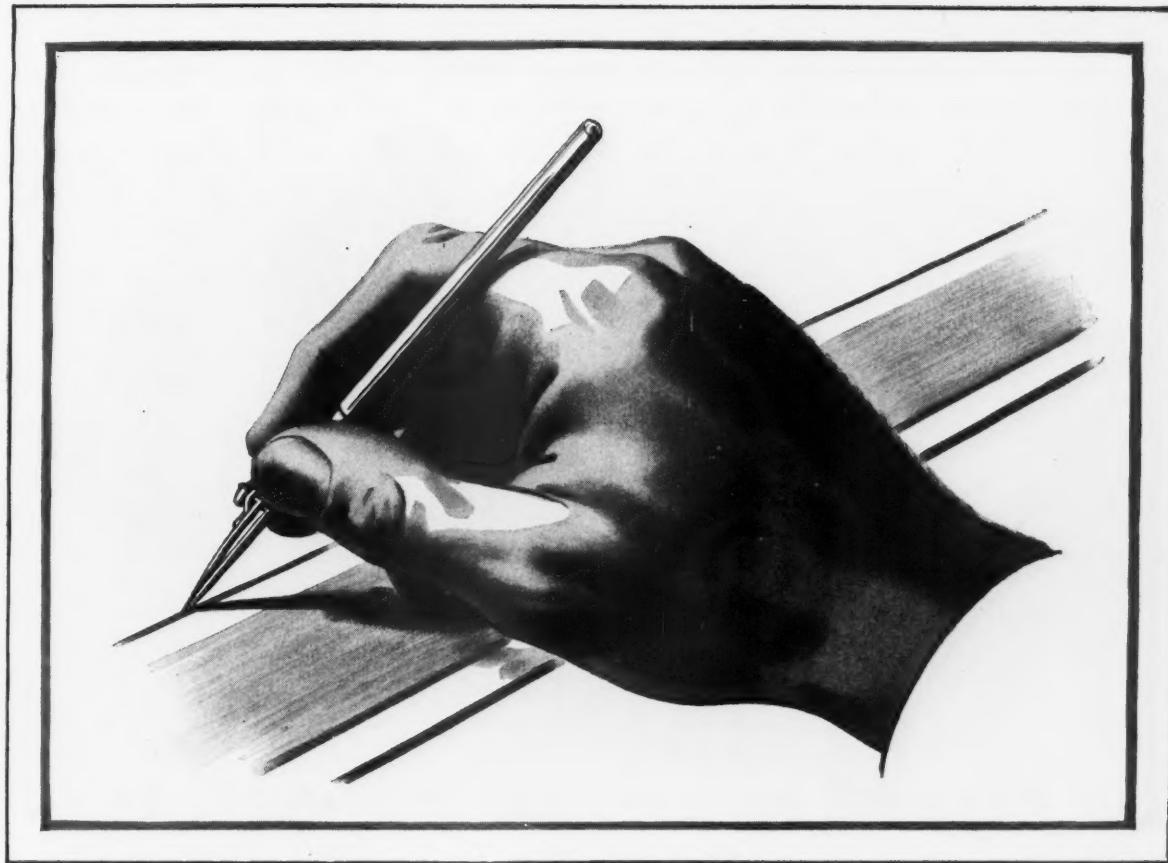
NEW YORK ★ MOBILE ★ NEW ORLEANS ★ GALVESTON
SEATTLE ★ BUENOS AIRES ★ LONDON



Turn every heat unit into useful power or heat! Fuel waste is sabotage.

ON THE FIRING LINE
OF AMERICA'S WAR
PRODUCTION FRONT
TODD BURNERS





this is **BLUEPRINT TIME!**

The welfare of the nation will be greatly benefited, if, when peace is declared, a large volume of both private and public construction can break ground immediately. Construction is the greatest hope for full employment in the postwar period.

In order to get the maximum value from private investment or public works, and avoid waste of manpower, time and money, it is absolutely necessary to have well-planned, soundly conceived projects. This takes time and the time to plan is now. This is blueprint time!

Call in your architect, engineer and general contractor. Put your problems before them. Each has much to contribute in thinking, experience, data and facts that should be considered long before any actual construction is done.

By such activity you assure a better

competitive position for your company in postwar, more employment for returning soldiers and you help private enterprise to bear its share of the responsibility for postwar social and economic conditions.

The employment provided on a planned, needed public works project is a regular job at regular pay. A job on a hastily started project is made work at relief wages.

As you plan, bear in mind that the actual construction by a competent general contractor is another guarantee that the maximum value will be received from the investment.

"Planning Future Construction Markets" is a pamphlet published by the AGC that contains much valuable information for anyone interested in the construction industry. We'll be glad to mail you one gratis.



THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC.

NINETY CHAPTERS AND BRANCHES THROUGHOUT THE COUNTRY
NATIONAL HEADQUARTERS—MUNSEY BLDG., WASHINGTON, D. C.

SKILL, INTEGRITY AND RESPONSIBILITY IN THE CONSTRUCTION OF BUILDINGS, HIGHWAYS, RAILROADS AND PUBLIC WORKS



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Appropriate Employee Pension Plan

Improved management-employee relations are a natural consequence of a correctly designed employee pension plan. These are the basic benefits *your firm* could obtain from such a plan soundly financed through investment in insurance company annuity contracts or in securities:

1. Reduces labor turnover. By its nature, a pension plan rewards long, faithful service.
2. Attracts and holds high type employees. The employee is afforded benefits supplemental to

Social Security payments which are based only on earnings up to \$3000.

3. Eases Wage Problems. A pension plan provides positive financial value to the employee, yet is in line with governmental anti-inflation trends.

A 92-page summary of the fundamentals of formulating and financing pension plans is now available. There is no obligation entailed in writing for this study, so send for your copy now and have the facts available when you *need* them.

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